NORTH COAST RESOURCE PARTNERSHIP

2015 IRWM Project Grant Application

ATTACHMENT 3:

Work Plan

Integrated Regional Water Management Program
Applicant: Humboldt County

Attachment 3. Work Summary

PROJECT: Contract Administration

IMPLEMENTING AGENCY: Humboldt County

Project Description:

The Regional Water Management Group, authorized Humboldt County to act as the applicant and the grant manager for the Proposition 84, IRWM 2015 Grant. Humboldt County will administer these funds and respond to DWR's reporting and compliance requirements associated with the grant administration. This office will act in a coordination role: disseminating grant compliance information to the project managers responsible for implementing the projects contained in this agreement, obtaining and retaining evidence of compliance (e.g., CEQA/NEPA documents, reports, monitoring compliance documents, labor requirements, etc), obtaining data for progress reports from individual project managers, assembling and submitting progress reports to the State, and coordinating all invoicing and payment of invoices.

Goals and objectives:

- Provide an efficient regional framework for grant management that supports and meets the objectives and requirements of the state of California and the North Coast region
- Provide centralized contract administration with uniform accounting, reporting, and compliance protocols for multiple DWR funded projects
- Facilitate communications between multiple projects and DWR, coordinate submittal of all deliverables, site visits, and agreement amendments as necessary.

Standards to be used in project implementation:

NRP staff has developed several templates and grant management materials to provide effective and efficient management including invoice tracking templates, Grants Compliance Manuals, progress report templates, and deliverables tracking. The NRP staff hosts orientations with projects prior to initiation of work to develop a better understanding of grant compliance requirements, reporting and invoicing processes, and other related topics.

Summary of work completed to date:

The County of Humboldt's Public Works Department Natural Resources Planning (NRP) office brings over 8 years of experience in managing North Coast Resource Partnership IRWM Grants. To date, the NRP staff has worked with DWR on four implementation grants (Agreements #4600008534, #4600009197, #4600009714 and the 2014 IRWM Drought Agreement). NRP staff has worked closely with DWR staff to manage these grants and have held regularly schedule conference calls to keep track of project status, address concerns, and develop solutions for effective and efficient grant management.

Budget Category (a): Direct Project Administration

Task 1 - Agreement Administration (0% complete)

Humboldt County will respond to DWR's reporting and compliance requirements associated with the grant administration and will coordinate with the project managers responsible for implementing the projects contained in this agreement.

Task 2 - Invoicing (0% complete)

Humboldt County will be responsible for compiling invoices for submittal to DWR. This includes collecting invoice documentation from each of the project proponents and compiling the information into a DWR Invoice Packet.

Task 3 - Progress Reports and Project Completion Report(s) (0% complete)

Humboldt County will be responsible for compiling progress reports for submittal to DWR. Humboldt County will coordinate with project proponent staff to retain consultants as needed to prepare and submit progress reports and final project completion reports for each project, as well as the grant completion reports. Reports will meet generally accepted

professional standards for technical reporting and the requirements terms of the contract with DWR outlined in Exhibit G of this agreement. For example, progress reports will explain the status of the project and will include the following information: summary of the work completed for the project during the reporting period; activities and milestones achieved; and accomplishments and any problems encountered in the performance of work. Project completion reports will include: documentation of actual work done, changes and amendments to each project, a final schedule showing actual progress versus planned progress, and copies of final documents and reports generated during the project.

Deliverables:

- Executed Grant Agreement
- Invoices and associated backup documentation
- Progress Reports
- Draft and Final Project Completion Report

PROJECT: Bear River Band of the Rohnerville Rancheria, Reclaimed Water Project

IMPLEMENTING AGENCY: Bear River Band of the Rohnerville Rancheria

Project Description:

The Bear River Band of the Rohnerville Rancheria Reclaimed Water Project will replace the use of potable water (treated groundwater) with reclaimed wastewater for irrigation of three stormwater treatment wetlands in the dry season. The proposed project will include an educational trail to increase tribal/public awareness of the current drought situation. The project will involve the installation of a new 4-inch reclaimed water pipeline from the new Wastewater Treatment Plant (WWTP) which is currently under construction, to the existing water storage tank (to be repurposed). The project will install new 4-inch reclaimed water pipeline from the repurposed storage tank to each of the wetlands to be irrigated which will include a reclaimed water piping branching around the perimeter of the wetlands. The project will also install irrigation sprayers and irrigation control systems including wiring and irrigation controllers. In order to repurpose the existing water tank for the proposed Water Reclamation Project, the existing smaller SBR Wastewater Treatment Plant will be taken out of service by redirecting flows to the new Bear River Wastewater Treatment Plant which is currently under construction. An existing pipeline to the repurposed tank will be abandoned. The final stage of work is to complete the educational pathway, including message development, sign manufacturing and placement.

Project Goals:

Goal : This project achieves intraregional cooperation as the Tribe will interact with Indian Health Service (IHS) and the NCRP.

- This project was developed and will be implemented by the Bear River Tribe based on local knowledge of the Tribe's needs, facilitates, and property.

Implementation of this project would be continuation of effective, intraregional cooperation with IHS and develop a new framework for accountability with NCIRWMP through project implementation.

Goal : Economic vitality is enhanced by reduced cost a DAC spends on potable water for wetland irrigation.

- Maintaining wetlands with reclaimed water will attract the financial benefits of eco-tourism for the DAC. This reclaimed water project will attract technical, environmental and educational groups.
- The project improves working landscapes and natural areas by supporting and improving the wetlands and as a result of the new WWTF reduces potential impacts to surface water.

Goal : Ecosystem conservation is achieved by the project by enhancing and conserving a functional wetland.

- The project will directly enhance the restoration of a functional constructed wetland by providing irrigation with reclaimed water in the dry seasons. Wetland plants will have a better survival rate.

Goal : Irrigation of the wetlands with reclaimed water preserves treated drinking water for municipal use.

- Recycled water will replace potable water for irrigation of wetlands resulting in conservation of treated drinking. Education about reclaimed water use will increase water conservation practices.

Goal : Using reclaimed water for the irrigation conserves drinking water and energy for treatment/pumping.

- Replacing drinking water with reclaimed water for irrigation of wetlands results in water conservation and reduced electricity (GHG) used for pumping, treating, and distribution of drinking water.

Standards to be used in project implementation:

The reclaimed water system will conform to: 2013 CA Building Code, ACI 350, ACI 318, AWWA C605, C900, C906, and ASTM D2729-11. The contractor will follow a Construction Safety Plan including Injury and Illness Prevention Plan, Code of Safe Practices for Construction, Heat Illness Prevention Program, Fall Protection Program, and Excavation/Trenching/Shoring

Program. OSHA Standards are in the Safety Plan. Samples will be analyzed at analytical laboratory certified by the California DHS.

Summary of work completed to date:
The Bear River Band of the Rohnerville Rancheria (Bear River Tribe or the Tribe) has installed a groundwater well, water treatment system, above ground storage tank to supply water to the occupants of the Rancheria. The Tribe also is in the process of completing construction of a new wastewater treatment system to replace two undersized and failing wastewater systems. Following is a list of technical documents developed for the project:

- Project Drawings (Wahlund Constructions Company), 2015
- Project Cost Estimate (Wahlund Constructions Company), 2015
- Tish Non Village Mitigation and Monitoring Plan, July 23, 2009, prepared by NRM Corporation.
- Third Annual Monitoring Report for the Tish Non Village Mitigation and Monitoring Plan, December 18, 2013 prepared by NRM Corporation.
- Secondary Disposal Field Suitability Investigation Results and Low-Pressure Pipe Distribution System Design for Disposal of Treated Effluent, Tish Non Village, Bear River Rancheria, Loleta, California, SHN, September, 2013 .

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors.

Deliverables:
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)
Develop and submit a Project Performance Monitoring Plan based on the Tish Non Village Mitigation and Monitoring Plan prepared by NRM Corporation in 2009. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points.

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task.5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Plans (50% complete)

A final set of design plans and specifications will be developed to put out to bid. The plans and specifications will conform to all necessary requirements stipulated by the Tribe and regulatory agencies to ensure a high quality product. The Wahlund Construction Company developed project design drawings and a cost estimate for the project. These are provided as technical support documents in Attachment 3.

Deliverables:

- Updated Project Cost Estimate
- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Select qualified consultant to complete the CEQA process. Prepare Initial Study and all relevant CEQA documents per CEQA Guidelines. File Notice of Determination or prepare draft Environmental Impact Reports (EIR) and release document for public review. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Completion or Determination
- No Legal Challenges letter

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (100% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation (0% complete)

Construction activities are outlined below.

3(a) Project Construction: Reclaimed Water Pipeline. Provide and install approximately 2500 ft of new 4" HDPE reclaimed water piping to supply reclaimed water to existing reclaimed water storage tank and to each of the wetlands to be irrigated.

3(b) Project Construction: Wetland MA2 Irrigation System. At Wetland MA2, provide and install reclaimed water piping branch, sufficient irrigation sprayers to evenly irrigate the wetland, irrigation control system including wiring and irrigation controller.

3(c) Project Construction: Wetland MA3 Irrigation System. At Wetland MA3, provide and install reclaimed water piping branch, sufficient irrigation sprayers to evenly irrigate the wetland, irrigation control system including wiring and irrigation controller.

3(d) Project Construction: New Sanitary Sewer and Abandoning Existing SBR WWTP. Design, provide and install approximately 1000 ft of new sewer line with manholes to bring existing wastewater into collection system supplying new WWTP.

3(e) Project Construction: New Educational Trail. Design, provide and install approx. 2800ft of new 4ft wide educational trail consisting of geotextile fabric overlain by 6" of compacted Class 2 Aggregate Base. Include interfaces with existing sidewalks and 4 educational signs.

Deliverables:

- Photographic documentation
- Engineers Certification

Task 4 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification. Performance of the wetlands will be monitored twice yearly.

Deliverables:

- Photographic documentation
- Monitoring Report

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Notice of Completion

PROJECT: Boles Fire Water System Rehabilitation & Water System Restoration

IMPLEMENTING AGENCY: City of Weed

Project Description:

The City of Weed Boles Fire Water System Rehabilitation & Water System Restoration project consists of two components.

1. Angel Valley Water System Rehabilitation: The water distribution system in Angel Valley is undersized and located in back allies and along shared lot lines. As such it is inaccessible and difficult to maintain. Further, the area has suffered from inadequate fire flows which was brought to evident during the 2014 Boles Fire. The proposed project consists of installing approximately 5,000 linear feet of 6- and 8-inch water mains, including valves and appurtenances; and nine fire hydrants. It will be necessary to re-route new water services to 58 lots in which homes were destroyed during the Boles Fire, and an additional 46 lots in which water mains are relocated to the street.

2. South Weed Boulevard Water Main Abandonment and Replacement: The project consists of abandonment of 2,400 feet of 4-inch water main, and replacement of about 2,100 feet of 2-inch water main with a new 6-inch water main. 86 existing water services would be re-connected to an existing or new water main. Refer to Figure 2.

Implementation of these projects will, 1) provide a more watertight distribution system, 2) reduce "unaccounted for" water, 3) increase fire protection, 4)provide more reliable water service, and 5) reduce financial risk.

Goals and objectives:

Goal 1: Reduce water loss.

- Reduce "unaccounted for" water when comparing water production and consumption data. According to the City's 2003 Master Water Plan, the estimated water loss within the City was about 33.5%.
- Relieve impact on the City's spring and well water supplies.

Goal 2: Reduce financial expense and risk to the City.

- Significantly reduce O&M expenses incurred by City staff for repairing leaks.
- Eliminate extraneous claims by private parties against the City for water damage.

Goal 3: Replace aged infrastructure.

- Eliminate infrastructure that has reached or exceeded its useful life.

Goal 4: Provide Reliable Water Service.

- Provide stable and uninterrupted water service to customers within the proposed project areas.

Standards to be used in project implementation:

Domestic water systems in California are regulated by the California Department of Public Health. Laws and regulations pertaining to design, construction and operation of public water systems are detailed in California Code of Regulations, Title 22. The American Water Works Association (AWWA) has developed standards by which all components in a public water system must meet. As such technical specifications will be provided in the construction bid documents which detail the material and performance requirements for all equipment and materials used on the project. Prior to construction, the Engineer reviews and approves submittals for each component and a field construction observer verifies their use in construction of the improvements. Once the facilities are construction AWWA-approved testing procedures are used to prove the system.

Summary of work completed to date:

Project feasibility for portions of the proposed improvements were identified in the City's 2003 Master Water Plan Update, as Immediate Recommended Improvements. In addition, cost estimates were developed to improve the water system in

Angel Valley in 2012 and again in 2014 after the Boles Fire burned through this area. Following is a technical document that has been developed for the project:

- City of Weed Boles Fire Water System Rehabilitation & Water System Restoration, Pace Engineering, May 2015

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

The City of Weed and Engineer will manage the grant agreement, including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager, Humboldt County. The City of Weed will obtain and prepare invoices, including relevant supporting documentation for submittal to DWR via Humboldt County. The City of Weed and Engineer will complete required administrative responsibilities associated with the project, such as managing consultants and contractors.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Labor Compliance Program (0% complete)

The Engineer will develop and implement a Labor Compliance Program on behalf of the City of Weed. The effort will include periodic interviews with Contractor's employees during construction activities and confirmation of compliance with applicable prevailing wage determinations, including consultations with the State Labor Board and contractor**.**

Deliverables:

- Proof of labor compliance upon request

Task 3 - Reporting (0% complete)

The City of Weed and Engineer will prepare progress reports detailing work completed during the reporting period as outlined in the agreement with Humboldt County, and submit said reports to Humboldt County for review.

The City and Engineer will prepare a draft Final Completion Report and submit to DWR via Humboldt County for review no later than 90 days after project completion. A final report will be prepared addressing Humboldt County and DWR's comments, in accordance with the provisions in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - CEQA Documentation (0% complete)

The proposed project replaces existing water mains within the existing City road rights-of-way and developed paved streets. As such, it is anticipated the project will meet the conditions for a CEQA Class 2 Exemption. The Engineer will work with the

City's environmental consultant to fill out the appropriate paperwork and file with the County Clerk. The Bid Documents will include the typical construction-related environmental mitigation measures pertaining to noise, air quality, erosion control, and protection of sensitive resources, including cultural resources. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Final CEQA compliant documents
- No Legal Challenges letter

Task 2 - Permitting (0% complete)

The Engineer will procure any non-construction required permits for the project. It may be necessary to obtain a Stream Alteration Agreement with the California Department of Fish and Wildlife, if a replacement pipeline crosses a drainage culvert meeting certain conditions. The need for these permits will become known after the field survey work is completed.

A Caltrans Encroachment Permit will be required for portions of work in South Weed Boulevard that resides within the Caltrans right-of-way

California Government Code §53091(d) states the following: *Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.* Therefore, no local building permits are required

Deliverables:

- CDFW Stream Alteration Agreement
- Caltrans Encroachment Permit

Task 3 - Design (0% complete)

The Engineer will perform topographic surveys along the proposed pipeline alignments, locate existing utilities and establish adjacent property boundaries. Mapping of the project area will be prepared. Improvements plans will be developed which detail the necessary pipeline replacements, including water service relocations, and fire hydrant and valve locations. Written contract documents, including technical specifications will be prepared, suitable for public bidding. A final engineer's estimate will be determined. Draft plans and specifications will be submitted to the California Department of Public Health for review and approval of separation requirements to existing utilities.

Deliverables:

- Topographic Survey
- Updated Project Cost Estimate
- 100% Design Documents (Bid Documents)

Task 4 - Project Performance Monitoring Plan (0% complete)

The City of Weed and Engineer will prepare and submit a Project Performance Monitoring Plan which presents baseline conditions and establishes monitoring systems to be used, as well as the frequency and location of monitoring points. For the Angel Valley improvements, the primary monitoring condition will be the measured fire hydrant flow in the area compared to pre-project conditions, as indicated in the 2003 Master Water Plan. For the South Weed Boulevard improvements, the frequency of leaks in the system will be compared to pre-project conditions.

Deliverables:

- Project Performance Monitoring Plan
- Project Monitoring Report

Category (d): Construction/Implementation

Task 1 - Contract Services (0% complete)

The Engineer will publish the advertisement for bids and perform a pre-bid contractor meeting as an aid to potential bidders. Upon completion of the bidding process, the Engineer will evaluate the bids and provide the City and DWR with an apparent low bidder, along with a summary of bids. The City and DWR will review the apparent low bidder's documents and, if satisfied, authorize award of the contract. The Engineer will issue a Notice of Award to the contractor and review project insurance and bond forms and recommend execution of a contract with the contractor. Once the contract is executed, the Engineer will host a pre-construction conference and issue a Notice to Proceed.

Deliverables:

- Advertisement for bids
- Contractor's bid documents with bid summary
- Notice of Award
- Notice to Proceed

Task 2 - Construction Administration (0% complete)

The Engineer will review project submittals and perform the day-to-day construction administration efforts, including coordinating construction activities between the City and the Contractor. The City and the Engineer will ensure environmental compliance is maintained throughout construction. The Engineer will review and respond to requests for information from the Contractor, as well as prepare contract change orders, as required. As construction progresses, the Engineer will prepare and submit pay estimates for approval by the City. The Engineer will also provide an on-site construction observer to help ensure construction quality. The construction observer will keep a daily log and take photos of the construction activities for the City and Engineer's records.

Deliverables:

- Completed construction administration tasks documented in project progress reports
- Notice of Completion

Task 3 - Construction/Implementation Activities (0% complete)

Construction activities are described below for each Construction/Implementation location:

- Angel Valley Water System Improvements
- South Weed Boulevard Water System Improvements

3 (a) Mobilization and Demobilization. The contractor will mobilize equipment to the job site(s), consisting of small excavators or backhoes, loader(s), water truck(s), 10-wheeled trucks and materials, such as bedding sand, imported backfill, and water system materials (pipe, fittings, valves, fire hydrants and appurtenances). At the end of the project, the contractor will remove all leftover construction materials and equipment from the project.

3 (b) Site preparation. Site preparation will include layout of proposed facilities, potholing existing utilities and saw-cutting or grinding pipeline alignments in existing paving. Materials will be strategically staged throughout the project area to facility efficient installation of new improvements.

3 (c) Water System Installation. The new water mains will be installed at planned locations and adjusted to avoid existing utilities, based on the contractor's potholing efforts. Once the new mains, and appurtenances are installed, the contractor will install the new water services. Approximately 7,100 linear feet of new 6-inch and 8-inch water main, and new piping or connection to about 150 water services. New gate valves will be installed at tie-in points and intersections. Approximately ten new fire hydrants will be installed.

Deliverables:

- Construction photos
- Engineer's Recommendation of Acceptance
- Notice of Completion

Task 4 - Construction/Implementation Contingency (0% complete)

Contingency funds are intended to cover unforeseen situations during construction, in which the contractor could not have anticipated during bidding. Contingency funds can also be used to offset unforeseen non-construction related costs. Contingency spending will be tracked with approved contract change orders for construction activities, and amendments for non-construction related work performed by third parties.

Deliverables:

- Contract change orders
- Agreement amendments

PROJECT: County Service Area # 1 and Crescent City Lift Station Rehabilitation

IMPLEMENTING AGENCY: Del Norte County

Project Description:

The Del Norte County Service Area # 1 and Crescent City Lift Station Rehabilitation project would upgrade sewer lift stations for Del Norte County and Crescent City and installing supervisory control and data acquisition systems (SCADA) in 21 lift stations. Each system has been assessed to determine the extent of rehabilitation warranted for each lift station. Full rehabilitation of a lift station will consist of replacing pumps with two "chopper" pumps, motors, installing modern electronic controllers, valves, sump pump, blower dehumidifier, and programming and integration of a SCADA system. "Chopper" pumps macerate solids and do not require regular maintenance to remove debris as is the case with current pumps. The intended purpose of the project is to: 1) reduce the environmental impacts of SSOs from lift station failures to wetlands, harbors, waterways, and their sensitive habitats, 2) reduced power consumption due to the higher efficiency of the pumps and more efficient operating conditions, 3) reduce regular dangerous confined space entries to service pumps and equipment, and 4) improved lift station operation reliability and allow for remote monitoring and operation through the new SCADA system. Better pumps, better controllers and better remote communications and controls will result in fewer SSOs from lift station failures and cost savings from the current over burdened users.

Goals and objectives:

Goal 1: The project is an intraregional project with cooperation of Del Norte County and Crescent City.

- CSA/Crescent City cooperatively developed the project to benefit both Jurisdictions. City/County Staff have local knowledge being used to develop the plan, project development and implementation.
- T his project provides an opportunity for the County and City to work together and better understand each other's goals. This relationship will form a framework for future intraregional collaboration.

Goal 2: Economic vitality is achieved by increased financial benefits associated with recreational tourism.

- The economic vitality of the DAC is enhanced because impacts to water quality (SSOs in stream systems) affect the ability of the DAC to attract the financial benefits of recreational tourism.
- The economic benefits to North Coast working landscapes and natural areas will be conserved by reducing the number of SSOs that impact (contaminate) numerous natural areas and working landscapes.

Goal 3: Ecosystem conservation and enhancement is achieved by reducing SSOs that impact nearby ecosystems.

- By reducing the number of SSOs that impact ecosystems, watershed and aquatic ecosystems, including functions, habitats, and elements to support biological diversity will be conserved and enhanced.
- By reducing the number of SSOs that impact ecosystems and watershed, salmonid populations will be enhancing because the project will conserve salmonid required habitats and water shed processes.

Goal 4: Reducing the number of SSOs impacting surface water habitats help maintain their beneficial uses.

- Reducing SSOs that impact soil / surface water near lift stations results in protection of groundwater from future impact or contamination from SSOs which contain municipal and industrial wastewaters.

Goal 5: New pumps are 20-30% more energy efficient and fewer vehicle trips for service reduces GHGs.

- Replacing old pumps/controllers with modern ones will use less energy to operate and generate less GHG. With SCADA and chopper pumps there will be, fewer maintenance trips and reduce GHGs.

Standards to be used in project implementation:

A specific set of construction standards has not been identified for the project. Since the project is a rehabilitation project, retrofits to each lift station will be at the discretion of the City's Public Works Director and the County's County Engineer. It

is anticipated that a lot of coordination will occur between the City and County, pump suppliers, and SCADA suppliers to promote constructability and longevity of project improvements.

Summary of work completed to date:
Del Norte County developed the concept for the lift station rehabilitation project and coordinated meetings with Crescent City, Elk Valley Rancheria and Crescent City Harbor District. Collaboration resulted in a project design. Del Norte County developed project engineering drawings, and collected cost estimates for the upgrades and alternatives. Del Norte County notified Crescent City Harbor District and Elk Valley Rancheria to discuss the plans and impact on the Harbor and the Rancheria.

Del Norte County Community Development Department developed a series of engineering design drawings that represent the scope of work to be performed at each lift station. A technical quote with equipment specifications were acquired from Rockwell Solutions and are used as the basis for the cost. The following technical document has been developed for the project:

- Del Norte County CSA & Crescent City Lift Station Rehabilitation Plans and Specifications, County of Del Norte Engineering & Surveying Division, 2015

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors including Collaboration partners for this project including: Crescent City; Elk Valley Rancheria; and Crescent City Harbor District.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (0% complete)
Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:
- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)
Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - 90% Design & Plans (10% complete)

Develop a set of plans and specifications to the 90% complete level. 90% plans and specifications will be supplied to all interested parties for review and comment.

Deliverables:

90% Plans and Specifications

Task 2 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). File a Categorical Exemption with the State Clearinghouse for the project. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Filed Categorical Exemption
- Copy of Notice of Completion
- No Legal Challenges letter

Task 3 - Permit Development: Building Permit (0% complete)

Secure standard Building Permits for each lift station.

Deliverables:

- All required Building Permits

Task 4 - Final Plans and Specifications (0% complete)

Develop Final Plans and Specifications for incorporation in the Bid Book.

Deliverables:

- 100% Design Documents

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed. Schedule Flex Time included in project schedule to avoid work during wet weather flows.

Deliverables:

- Bid documents
- Proof of Advertisement
- Bid Book approved by Board of Supervisors and City Council
- Award of contract
- Notice to proceed

Task 2 - Project Construction/Implementation: Rehabilitate 6 Lift Stations (0% complete)

Rehabilitation of 6 lift stations including: chopper pumps and motors, blower and dehumidifier, sump pump, check valves, plug valves, flow meter, necessary pipe and installation. The four County lift stations include: Burtschell (Lift Station 7), Olive (Lift Station 31), Hodge (Lift Station 32), and Roy (Lift Station 33). The two City lift stations include: Tetrapod (Lift Station 21) and Cronk (Lift Station 24).

Deliverables:

- Photographic documentation
- Engineers Certification

Task 3 - Project Construction/Implementation: Supervisory Control and Data Acquisition Systems (0% complete)

SCADA system architects develop system specific software. Control panels with radio transmission capability developed for each of 21 lift stations. Lift stations equipped with control equipment.

Deliverables:

- Photographic documentation
- Engineers Certification

Task 4 - Project Close Out (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification, including sanitary sewer overflows, power consumption, and maintenance hours.

Deliverables:

- Report of sanitary sewer overflows, power consumption, and maintenance hours over a twelve month pre-construction window versus a twelve month post-construction window
- Project Monitoring Report

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

Task 7 - Construction Contingency (0% complete)

Contingency funds are intended to cover unforeseen situations during construction, in which the contractor could not have anticipated during bidding. Contingency funds can also be used to offset unforeseen non-construction related costs. Contingency spending will be tracked with approved contract change orders for construction activities, and amendments for non-construction related work performed by third parties.

Deliverables:

- Contract change orders
- Agreement amendments

PROJECT: Working Landscapes Drought Resiliency Project

IMPLEMENTING AGENCY: Gold Ridge Resource Conservation District

Project Description:

The Gold Ridge Resource Conservation District (GRRCD) project team will work with 7-10 participating farms, ranches, and dairies to conduct comprehensive property plans to assess water storage potential, develop conservation measures, and address soil health to build long-term drought resiliency. The plans will then be used to prioritize and guide the development of rainwater catchment systems, developed to substantially offset or completely eliminate summer stream or groundwater withdrawals, and to target compost applications over at least 50 acres to enhance soil water holding capacity. Additionally, an innovative 62,000-gallon roof rainwater catchment and 5,000-gallon greywater system, currently in its final design phase, will be constructed as a high-profile demonstration project at the Valley Ford Wool Mill. A second rainwater catchment system, also in design, will be constructed on a crop farm along Salmon Creek that was formerly the largest water user of the Bodega Water Company system. Finally, the project will build on the streamflow and water quality monitoring programs currently in effect in each watershed to evaluate overall program effectiveness.

Goals and objectives:

Goal 1: Drought resiliency of the farming community of the Estero Americano and Salmon Creek watersheds

- Develop at least 7-10 comprehensive farm plans to evaluate water storage, develop water conservation measures, and enhance soil water holding capacity [200 characters max.]
- Design at least 2 large-scale rainwater catchment systems for agricultural operations to provide at least 750,000 gallons of summer water to offset stream or groundwater withdrawals
- Construct a rainwater catchment and greywater system at the Valley Ford Wool Mill with a 62,000-gallon rainwater and 5,000-gallon greywater storage capacity to offset town water system withdrawals
- Construct a rainwater catchment system at Fairy Nectar Farm with 75,000-gallon storage capacity to offset Bodega Water Company summer withdrawals.

Goal 2: Enhanced soil health and drought resiliency on working landscapes

- Apply compost to at least 50 acres of working lands to increase soil water holding capacity and carbon sequestration

Goal 3: Public outreach and education of IRWM priorities and project implementation

- Conduct at least 2 public workshops/tours of the Wool Mill demonstration project, Fairy Nectar Farm project, and compost application sites
- Develop and distribute a publication describing benefits of rangeland soil enhancement to enhance soil moisture and drought resiliency

Goal 4: Streamflow monitoring for program effectiveness

- Install at least one flow gauge in the Estero Americano watershed to collect streamflow/connectivity data
- Continue the existing streamflow and water quality monitoring programs in each watershed, including data collection and analysis from gauge stations, water sample analysis, riffle connectivity analysis, and development of quarterly monitoring reports.

Standards to be used in project implementation:

Designs for rainwater catchment and water storage systems will be designed in accordance with the standards and specifications of the Natural Resources Conservation Service, so the projects will be eligible for EQIP funding.

Summary of work completed to date:
GRRCD launched its Water Conservation program in 2009 to begin developing large-scale agricultural rainwater catchment systems to offset withdrawals in key salmonid stream reaches. Through multiple funding sources, the program has expanded to focus as well on agricultural drought resiliency. The GRRCD is currently working with a vast network of landowners and many have expressed interest in participating in the project types described here. In 2014, the RCD began receiving annual funding from Sonoma County to perform outreach and provide technical assistance specifically for drought preparedness projects on agricultural lands and underserved rural residential areas. GRRCD is also working with the community water companies in both Valley Ford and Bodega.

Preliminary planning for the program was formalized in the Estero Americano Watershed Management Plan in 2007 and site specific design plans were developed for the Valley Ford Wool Mill and Fairy Nectar Farm. Following is a list of technical documents developed for the project:

- Valley Ford Wool Mill Rainwater Catchment and Greywater System Design
- Fairy Nectar Farm Rainwater Catchment Design
- Estero Americano Watershed Monitoring Plan, Gold Ridge RCD, February 2007
- Salmon Creek Streamflow Restoration Monitoring Plan

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors including the National Fish and Wildlife Foundation, NOAA, State Coastal Conservancy, and California Department of Fish and Wildlife.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)
Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and

location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request
- Submission of Labor Compliance Program

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Plans (0% complete)

Complete 100% designs for at least 2 large-scale rainwater catchment projects; summaries of 7-10 comprehensive farm plans.

Deliverables:

- 2 - 100% Design Documents and designs for rainwater catchment systems
- 7-10 Farm Plan Summaries

Task 2 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare draft NOE/ND for rainwater catchment construction as required for each site and release documents for public review. File Notice of Determination with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation

- Copy of Notice of Determination
- No Legal Challenges letter

Task 3 - Permitting (0% complete)

Acquire county building permits for each site.

Deliverables:

- All required permits: county building permits

Category (d): Construction/Implementation

Task 1 - Project Construction/Implementation: rainwater catchment/water storage systems (0% complete)

Construction of 2 large-scale rainwater catchment/greywater systems. Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Photographic documentation: pre- and post-construction photo-monitoring
- Engineers Certification

Task 2 - Project Construction/Implementation: compost applications (0% complete)

Application of 1/4 - 1/2 inch compost over at least 50 acres of working lands to enhance soil health and drought resiliency. Inspect project components and establish that work is complete. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- Detailed descriptions of plan implementation at each site
- Photographic documentation: pre- and post- application photo-monitoring with control sites

Task 3 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation: pre- and post-construction photo monitoring
- Streamflow/water quality monitoring quarterly reports
- Pre- and post-construction water use metering reports
- Project Monitoring Report

Task 4 - Construction Administration (0% complete)

This task includes completing tasks necessary to administer construction contract including answering requests for information, issuing work directives, keeping daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in progress reports

PROJECT: Flow Bank Program - Phase II

IMPLEMENTING AGENCY: Gualala River Watershed Council

Project Description:

The Gualala River Watershed Council Flow Bank Program - Phase II project will reduce diversions in the Gualala by installing off-stream storage systems for the North Gualala Water Company (NGWC) (Mendocino County) and the Kashia Tribe (Sonoma County), establishing a more reliable water supply for increasingly severe drought cycles. This project has separate three components:

(1) upgrading and increasing water storage capacity for the North Gualala Water Company (NGWC) at what is called The Mains site on Pacific Woods Rd. Implementation will provide an increase capacity at the Big and Robinson Gulch site decreasing reliance on the North Fork Gualala wells. Construction will be implemented by the NGWC with engineering and project administration provided by RAU and Associates. The NGWC will obtain water for storage from two nearby non-anadromous streams, reducing its withdrawals in the Gualala by 6 million gallons per year, or more than 12%. The alternate diversion sites, which are already permitted, were recommended by the SWRCB as a high priority during Cease and Desist negotiations. This part of the project also contains a water reuse component achieved through installation of a 36,000 gallon backwash recovery tank.

(2) The GRWC will implement and administer the placement of a 55,000 rainwater catchment tank at the main South Coast Volunteer Fire Department (SCVFD) station for use during training exercises and as an emergency water supply for the community.

(3) The GRWC will install a 25,000 water tank for the Kashia Water Company (Kashia) to increase untreated water capacity to allow the tribe to adjust withdrawals from the Wheatfield Fork to maximize instream flow and increase water capacity for fire protection.

Goals and objectives:

Goal 1: Protect surface flow and cool water infusion from springs to enhance juvenile salmonid habitat.

- Install 4 water tanks in the watershed to reduce water diversions during critical low flow periods by at least 6,110,000 gallons annually
- Continue ongoing efforts to address the conflict of sharing water equitably between humans and watershed ecosystems

Goal 2: Provide the watershed community with knowledge and tools for adapting to drought and climate change

- Restore and maintain healthy watershed conditions by utilizing the Flow Bank program as a tool to effectively engage our diverse communities and encourage communication
- Promote rainwater harvesting as a response to immediate drought conditions and an alternative water source that can help promote long-range water conservation

Goal 3: Improve economic vitality in the Gualala River Watershed.

- Contract with local vendors and service providers for the installation of water storage tanks
- Conserve and protect the natural environment to support recreational activities and working landscapes in the Gualala River Watershed.

Standards to be used in project implementation:

Construction oversight for all 3 components will be conducted by licensed contractors and engineers. Components 2 and 3 will be implemented through the existing GRWC Flow Bank program and follow all protocols and classifications.

Summary of work completed to date:
This project is an expansion of the Flow Bank Program 2014, which provides rainwater catchment systems and increased offstream storage to the agricultural and residential community in exchange for withdrawal forbearance. GRWC has begun collaborative efforts with the NGWC, the Kashia Tribe, South Coast Fire Department, and Cal Fire to promote water conservation strategies in the watershed. Following is a list of technical documents developed for the project:

- North Gualala Water Company, Pumping Limit Recommendations. Technical Memorandum, July 2013
- The Flow Bank-Protecting Stream Flow in the Gualala River, Gualala River Watershed Council, June 2014

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including North Gualala Water Company, South Coast Fire Department, Cal Fire, and Kashia Band of Pomo, Stewarts Point Rancheria.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (100% complete)
Develop and submit a Project Performance Monitoring Plan.

Deliverables:
- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)
Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Geotechnical /Engineering Planning (0% complete)

1a **Geotechnical /Engineering Planning: Kashia Water Company and SCVFD.** Complete geotechnical/engineering work needed for project design

1b **Geotechnical /Engineering Planning: North Gualala Water Company.** Complete geotechnical/engineering work needed for project design

Deliverables:

- Engineering plans for (1 SCVFD) 55,000 (1 Kashia) 25,000 gallon tanks stamped by a Licensed Engineer
- Engineering plans for NGWC installation

Task 2 - Final Design /Plans (40% complete)

Develop 100% (Final) design, plans, and specifications:

2a **Final Design /Plans: Kashia Water Company and SCVFD.** Develop a set of final design plans and specifications ready for permitting and construction.

2b **Final Design /Plans: North Gualala Water Company.** Develop a set of final design plans and specifications ready for permitting and construction.

Final Project Design and Construction Specifications for (1 SCVFD) 55,000 (1 Kashia) 25,000 gallon tanks

Final Project Design and Construction Specifications NGWC

Deliverables:

- Final Project Design and Construction Specifications for (1 SCVFD) 55,000 (1 Kashia) 25,000 gallon tanks
- Final Project Design and Construction Specifications NGWC

Task 3 - Permit Development: Mendocino & Sonoma County permits & Coastal Development Permit (CDP) (40% complete)

Acquire Mendocino & Sonoma County Building & Grading permits & Coastal Development Permit (CDP):

3a **Permit Development: Kashia Water Company and SCVFD.** Collect site resource data; pre-application site visits with permitting authority(ies); complete and submit CDP & Sonoma County Building & Grading permits for (1 SCVFD) 55,000 (1 Kashia) 25,000 gallon tanks

3b **Permit Development: North Gualala Water Company.** Collect site resource data; pre-application site visits with permitting authority(ies); complete and submit CDP & Sonoma County Building & Grading permits for NGWC installation

Deliverables:

- Mendocino & Sonoma County Building & Grading permits
- Coastal Development Permit

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation: North Gualala Water Company (0% complete)

Install 225,000 gallon pre-treatment tank and 36,000 gallon backwash tank, site preparation; 2 pad installations, tank assembly; install pumps, sediment pond, plumbing and electrical hookups.

Deliverables:

- Photographic documentation
- Summary of construction activities in monthly progress report
- Construction completed

Task 4 - Project Construction/Implementation: Kashia Water Company and SCVFD

Install (1 SCVFD) 55,000 (1 Kashia) 25,000 gallon tanks Site preparation; tank assembly; piping from roof to tank and overflow where necessary; pressure tank installation if necessary; anti-syphon valve installation if necessary; plumbing and electrical hookups; fire department approved siphon valves

Deliverables:

- Photographic documentation
- Summary of construction activities in monthly progress report
- Construction completed

Task 5 - Project Close Out, Inspection & Demobilization (0% complete)

- Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings and NGWC Engineer's Construction Review and Testing Report.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos
- NGWC site: Engineer's Construction Review and Testing Report

Task 6 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification: Water bills, annual reporting requirements incorporated into the forbearance contracts, temperature data, flow data.

Deliverables:

- Photographic documentation
- Annual water usuage reports and surveys.
- Annual in-stream monitoring reports
- Project Monitoring Report

Task 7 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: Happy Camp Water System Upgrades - Phase 1

IMPLEMENTING AGENCY: Happy Camp Community Services District

Project Description:

Water quality monitoring and data logging equipment will be installed inside and in the vicinity of a new shed adjacent to the existing 1,000,000 gallon water storage tank in Happy Camp, CA. Specifically, new equipment to measure pH, temperature, and Chlorine residual concentration on the tank outlet line will be installed. A new display for the existing tank pressure transducer that measures the water level in the tank will be installed. A water flow meter will be installed on the 12" tank outlet pipe for monitoring storage tank detention time. The flow meter will provide a 4-20ma signal to a control panel in the shed to record flow rates. The data for all of this equipment will be logged and stored in a new data logger, installed with the other equipment. The shed will be provided with a heater and ventilation system to provide heating during the winter and cooling during the summer to protect equipment and sample lines from adverse conditions. Additional fencing around the shed and tank site will be installed as needed. Electrical power will be brought to the site via a combination of overhead and underground electric lines from existing local Pacific Power Corporation poles to provide power to the equipment. Based on a previous project, power use would be less than that used by a new residential home. Existing Siskiyou Telephone Co. telephone service in the vicinity of the tank will be extended to the shed to allow data to be transmitted to the existing SCADA system in the water treatment plant building. These data will be integrated as needed into the plant's existing SCADA and telephone alarm system.

Water quality monitoring equipment will provide continuous monitoring (samples taken every 4 hours per regulatory and manufacturer requirements), data logging, and alarms for samples taken from the tank outlet pipe. These data, along with flow data for the tank inlet line (from the treatment plant flow meter) and tank outlet line (from the new tank site flow meter) and tank water level data (from the tank pressure (water level) transducer), will be used to automatically determine the actual concentration-time (CT) for chlorine disinfection, compare that data to the CT required for a minimum 1 log removal of Giardia in the tank inlet piping and the water storage tank, and provide documentation that the water treatment system is in compliance with State and Federal drinking water requirements. The data logging equipment will be used to generate automated monthly data reporting to be submitted to the California Office of Drinking Water under the State Water Resources Control Board to meet State drinking water compliance requirements. In the event that any parameter (pH, temperature, Chlorine residual concentration, tank water level, tank inlet or outlet flow rate) is out of compliance with required ranges, the system will provide an alarm alerting operators to the condition.

These data will provide water quality information for drinking water before the water enters the water distribution system. In the event that there is a problem, operators will be alerted and respond quickly. Initial alarms are typically set at points where the system is still in compliance but a potential problem could occur and should be addressed before the situation becomes serious. Additional benefits include (a) complying with the LT1/LT2 Enhanced Surface Water Treatment Rules; (b) providing economic assistance to an economically disadvantaged community; (c) ensuring all water users served by the community water system are provided with clean, affordable, accessible water for human consumption, cooking, and sanitation; and (d) providing an opportunity for Karuk Tribal consultation, collaboration, and access to funding for water programs on behalf of Native Americans, since a significant population of Karuk Tribal and other Tribal Members and Descendants living in Happy Camp are served by the community water system.

Goals and objectives:

Goal 1: Drinking Water Treatment and Distribution

- Improve drinking water quality monitoring
- Improve drinking water quality data reliability and reporting
- Improve water system operator response time to Federal and State drinking water quality requirement noncompliance events
- Comply with California Human Right to Water Policy (AB 685 (2012))

Goal 2: Economic Vitality for an Economically Disadvantaged Community (DAC)

- Assist DAC with compliance with State and Federal drinking water regulations
- Avoid administrative actions, penalties, or fines associated with noncompliance with regulations

Goal 3: Provide Tribal consultation, collaboration, and access to funding for water programs

- Provide more reliable quality water to Karuk Tribal and other Tribal Member and Descendant homes that are served by the water system
- Provide more reliable quality water to the Tribal Medical Clinic, Tribal Dental Clinic, Tribal Headstart facilities, and Tribal Administrative Offices served by the water system
- Provide a funding match for existing Indian Health Service (Federal) funds

Standards to be used in project implementation:
Standards used for the project include various standards for materials, equipment, installation, and testing. Specific standards and titles will be included in the construction contract documents. The general standards or associations include but are not limited to, the following: ANSI (American National Standards Institute), ASTM (American Society for Testing and Materials), AWWA (American Water Works Association), NSF International - The Public Health and Safety Organization, OSHA (Occupational Safety and Health Administration), Cal/OSHA (California Occupational Safety and Health Administration), SSPWC (Standard Specifications for Public Works Construction), Caltrans (California Department of Transportation), CASQA (California Stormwater Quality Association), Standard Methods for Examination of Water and Wastewater (for laboratory analyses), ACI (American Concrete Institute), ASME (American Society of Mechanical Engineers), SSPC (Society for Protective Coatings), National Electric Code, International Plumbing Code, NEMA (National Electric Manufacturers Association), UL (underwriters Laboratories, Inc.), PacifiCorp Six-State Electric Service Requirements Manual, latest edition, and NFPA (National Fire Protection Association). The Prime Contractor will be required to hold a valid State of California Class A General Engineering License. The Prime Contractor or the subcontractor doing the electrical work must either hold a valid State of California Class C-10 Electrical Contractor License or be a licensed California Electrician.

Summary of work completed to date:
This project is the 2nd phase of current water projects. The 1st phase includes the installation of a contact clarifier to meet surface water treatment requirements, is being funded by IHS and an IRWM Proposition 84 grant, and is to be completed by Fall 2016. The 3rd and 4th phases, Happy Camp Water System Upgrades Phases 2 and 3 will address treatment plant residuals management, and water distribution booster station equipment, respectively. A water treatment evaluation study was performed in 2010 and a preliminary engineering report was developed in 2013. Following is a list of technical documents developed for the project:

- Happy Camp Community Services District Water Treatment Evaluation Study, by HydroScience Engineers, Inc., dated 12/8/2010
- Preliminary Engineering Report, Happy Camp Water System Upgrades - Phase 1, by IHS, dated 7/25/13
- Project Summary - Happy Camp Water System Upgrades - Phase 1, by IHS, dated 7/22/14

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities

associated with the project such as coordinating with consultants/contractors, and partnering agencies including the Karuk Tribe and IHS.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Feasibility Studies (100% complete)

Project Feasibility Studies were completed as part of the project development process. A water treatment evaluation study was performed in 2010 and a preliminary engineering report was developed in 2013.

Deliverables:

- Happy Camp Community Services District Water Treatment Evaluation Study, by HydroScience Engineers, Inc., dated 12/8/2010
- Preliminary Engineering Report, Happy Camp Water System Upgrades - Phase 1, by IHS, dated 7/25/13

Task 2 - Final Construction Design (5% complete)

Complete basis of design report (BOD). The BOD will provide the overall project concept for use in development of 100% (Final) design, plans, and specifications.

Deliverables:

- BOD Report
- Updated Project Cost Estimate
- 100% Design Documents
- Happy Camp CSD Legal Review of Design Documents, if required

Task 3 - Environmental Documentation: CEQA (5% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare draft CEQA/NEPA documents and release document for public review. File Notice of Exemption or Determination with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Draft and Final NEPA CatEx/CEQA CatEx
- Copy of Notice of Determination/ Exemption
- No Legal Challenges letter

Task 4 - Permitting (0% complete)

Acquire the following permits:

- Siskiyou County Encroachment Permit
- Siskiyou County Building Permit
- Amended Existing US Forest Service Special Use Permit

Deliverables:

- Siskiyou County Encroachment Permit
- Siskiyou County Building Permit
- Amended Existing US Forest Service Special Use Permit

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Complete solicitation and award of a construction contract. Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement

- Award of contract
- Notice to proceed

Task 2 - Project Construction/Implementation (0% complete)

Implement construction contract for installation of water quality monitoring equipment, monitoring shed, SCADA equipment, and associated items. Activities include mobilization/demobilization; site preparation; installation of pH, temperature, and chlorine residual measurement equipment; installation of tank outlet pipe flow meter and valves; installation of data logging and reporting equipment; incorporation of existing tank water level measuring equipment and treatment plant flow meter into new monitoring, data logging, and reporting system; installation of monitoring equipment shed with electric power and telephone service at existing water storage tank site; modification of existing SCADA and alarm system at water treatment plant; and testing, start-up, and water operator training for the equipment and system.

Deliverables:

- Photographic documentation
- Engineers Certification

Task 3 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

- During Project Implementation: monitoring of construction deliverables, which is included under Construction Administration Task
- During Project Life: Drinking water quality parameters will be continuously measured, detention time for the tank and tank inlet pipe will be measured/calculated. Concentration Time (CT) for disinfection for Giradia will be calculated and compared against minimum CT requirement for 1 log removal.

Deliverables:

- Photographic documentation (Project Implementation)
- Project Monitoring Report (Project Implementation)
- Monthly drinking water quality reports will be provided to the State Office of Drinking Water

Task 4 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring. Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- As-Built and Record Drawings
- Project Close Out Inspection report
- Project completion site photos
- Notice of Completion

PROJECT: Hoopa Valley Public Utility District Conservation Project

IMPLEMENTING AGENCY: Hoopa Valley Tribe

Project Description:

The intended purpose of the project is to replace 873 old, inefficient District water meters that are a public health hazard and do not meet federal regulation safety requirement for lead safety rules. In addition, the District cannot account for 50% of the water it produces and some, if not much of it is likely due to the meters being old and under-recording the water consumption.

Hoopa Valley's rural community relies on having affordable adequate safe water for drinking and household needs. The HVRUD depends on limited federal, state, and Tribal grant funding to improve its community water system. The HVPUDs 873 old water meters are unreliable and contain toxic lead, and must be replaced in order to provide safe water and also conserve water due to prolonged drought conditions.

The project replaces 873 old water meters with new ones along with water detection leak equipment to locate water leaks. The new water meters will help reduce current water system losses. The new meter installation is anticipated to reduce water demands and allow the District to better understand water usage, and control usage during droughts. It will provide some energy efficiency by not pumping water currently pumped that is regulated and by reducing operation and maintenance demands. There will be a minimal reduction in greenhouse gas emissions.

The major components of the project consists of: 1) installing 854 household water meters, 2) installing 19 commercial water meters, 3) installing water leak sonic detection equipment.

Goals and objectives:

Goal 1: Provide greater beneficial water uses and more accountable water conservation.

- Ensure water reliability; improve water quality, and water use efficiency.
- Improve drinking water infrastructure by replacing older deficient water meters to protect public health benefiting the Tribes economically disadvantaged community.

Goal 2: Promote Economic Vitality

- Provide water meter infrastructure improvements to encourage community development and the economic vitality of Hoopa Tribes economically disadvantaged community.

Goal 3: Remove Lead from community water system.

- Replace inefficient water meters with efficient water meters to reduce lead.

Goal 4: Promote a better understanding of water consumption in the community.

- Provide Community Water Conservation Information to District recipients in annual newsletters.

Standards to be used in project implementation:

The project performance deliverables will include making sure meters are installed correctly, photo monitoring replaced meters, mapping, detecting water leaks, and reporting to ensure the project budget, and deliverables stay on track as scheduled. Water meter readings will be compared to water production to verify a decrease in unaccounted for water.

Summary of work completed to date:

The Hoopa Valley Indian Reservation Water Quality Control Plan outlines the Tribal antidegradation policies and use designations for waters of the Tribe. Dara Zimmerman of California Indian Health Service performed a Water Production/Loss Analysis for the reservation and cost estimates have been developed for water meter equipment and installation. Following is a list of technical documents developed for the project:

- Hoopa Valley Water Plant Production Data 1 CA Indian Health Service Analysis
- Hoopa Valley Water Plant Production Data 2
- California Indian Health Service Analysis
- Hoopa Valley Indian Reservation Water Quality Control Plan, Approved September 11, 2002, Amendments Approved February 14, 2008
- Water Meter Price Quote

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors including the Hoopa Valley Tribal Fisheries, Forestry, and the Tribal Environmental Protection Agency, as they have responsibility for maintaining water quality on the Reservation. Additional coordination includes Tribal Health and Human Services, the Tribes Government and Administration, and Hoopa Community Economic Development.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Submission of Labor Compliance Program documents.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Design /Planning /Environmental Documentation (n/a)

Deliverables:

- none

Category (d): Construction/Implementation

Task 1 - Project Construction/Implementation: Meters (0% complete)

Initiate project site preparation and mobilize project. Order project equipment and supplies: 854 resident water meters; 19 commercial water meters. Hoopa Valley PUD will Install 873 meters to replace older water meters which will allow the District to have a new water meter system.

Deliverables:

- Summary of site preparation and project implementation activities in monthly reports
- Photographic documentation

Task 2 - Project Construction/Implementation: Water Leak Detector (0% complete)

Initiate project site preparation and mobilize project. Purchase sonic water leak detector and receive Sonic Detector Use Training. When the new meters are installed, the sonic leak detector will be used to locate water leaks in the system.

Deliverables:

- Summary of site preparation and project implementation activities in monthly reports
- Photographic documentation

Task 3 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 4 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification. Photos will be taken of installed meters and meters will be inspected for operation.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 5 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: Lower Supply Flood Risk Reduction and Fisheries Habitat Improvement Project
IMPLEMENTING AGENCY: Hoopa Valley Tribe

Project Description:

The Hoopa Valley Tribe Lower Supply Flood Risk Reduction and Fisheries Habitat Improvement Project will support flood risk reduction and salmonid habitat improvement efforts by supporting the removal of the south bank berm between Loop Rd. and Hwy. 96, including a portion of Scale Shack (Bair) Road. Dilapidated and defunct underground septic infrastructure will be removed through project implementation and relocated appropriately to better protect water quality from wastewater contamination impacts. Removal of the south bank Supply Creek berm targeted by this proposal will support flood risk reduction by enabling the design and construction of natural, fish-friendly floodplains for off-channel storage of flood peaks. The floodway will be widened, thereby slowing flood velocities. This project will reconnect Supply Creek with its former floodplain, supporting a more complex and naturally-functioning stream corridor with a restored riparian overstory. This project will substantially benefit salmonid habitat by increasing rearing habitat and improve flood convenyance while improving water quality and quantity.

Goals and objectives:

Goal 1: Reduce flood risk along lower Supply Creek

- Design and implement floodplains for off-channel flood storage to mute Supply Creek flood peaks and improve groundwater recharge
- Reduce high flow streamflow velocities by widening the Supply Creek floodway and increased roughness via riparian revegetation
- Increase channel capacity

Goal 2: Restore salmonid fish habitat along lower Supply Creek.

- Increase channel sinuosity and decrease channel slope with a new channel alignment downstream of the Loop Road bridge (south bank).
- Reconnect Supply Creek to its former floodplain, increasing the quantity and quality of salmonid habitat and increase natural grain size sorting to improve spawning habitat.
- Restore the riparian corridor, including increasing native riparian species diversity.
- Enhance salmonid habitat by constructing off-channel habitat and large wood and boulder habitat features to provide cover and improved geomorphic function.

Goal 3: Improve salmonid fish habitat availability, quality, and resiliency in drought conditions.

- Increase the amount of aquatic habitat that is shaded by riparian cover to improve thermal conditions for salmonids.
- Decrease stream temperatures by increasing hyporheic flow contributions including those associated with increased groundwater contributions from previous high flow events.
- Increase in-channel shading and cover by constructing new large wood and boulder habitat structures.
- Increase in-channel cover by creating more numerous natural pool features resulting from new geomorphic roughness (scour) associated with new channel complexity and large wood habitat features.

Goal 4. Increase groundwater recharge during high flow events within the project area by removing the berm along the south bank and reconnect Supply Creek to its natural floodplain.

- Increase high flow floodplain area to increase groundwater infiltration capacity.

Goal 5. Improve water quality by removing and relocating a dilapidated leach field to reduce fecal and nutrient contamination in Supply Creek and the nearby mainstem Trinity River.

- Reduce contamination to Supply Creek originating from the old leach field (fecal coliform, phosphates, and nitrates).
- Remove existing leach field and associated sewer infrastructure.
- Relocate leach field away from live water bodies (Supply Creek and Trinity River), and ensure new leach field/sewer infrastructure is up to modern standards for water quality protection.

Standards to be used in project implementation:
Construction and Health Standards will follow federal and tribal law and meet specifications required by the grant terms. Fish relocation and all construction work required for project implementation will follow the guidelines established by NMFS in their programmatic Biological Opinion No. 151422SWR2009AR00566 for habitat restoration projects in Northern California (NOAA 2012).

Summary of work completed to date:
The Hoopa Valley Tribe has secured funding (2014 California Department of Fish and Wildlife Drought funding and NRCS funding) and will begin Phase 1 work on Supply Creek upstream of Loop Road as well the north bank between Loop Road and Hwy. 96 in June '15. The Lower Supply Flood Risk Reduction and Fisheries Habitat Improvement Project will expand Phase 1 work by providing resources to support removal of the south bank berm between Loop Rd. and Hwy. 96 with a design that is completely integrated with Phase 1.

A conceptual design has been completed for this project. A site investigation has also been completed and is included in the Phase 1 Supply Creek 100% Design report. Phase 1 100% designs have also been completed. Following is a list of technical documents developed for the project:

- National Marine Fisheries Service , 2014, Final Recovery Plan for SONCC , NOAA, Arcata, CA; California Department of Fish and Wildlife , 2004, Recovery Strategy for CA Coho Salmon, California Department of Fish and Wildlife, Sacramento, CA
- McBain Associates, Stillwater Sciences, Hoopa Valley Tribal Fisheries Department, Ocean Associates, Inc., and Domenichelli and Associates. 2014. Supply Creek Phase 1 Final 100% Design Report. Arcata, CA.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including National Marine Fisheries Service, Natural Resources Conservation Service, Calfornia Department of Fish and Wildlife and Hoopa Valley Tribal Council.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Coordinate with the HVT Tribal Employment Rights Office (TERO) for labor compliance needs.

Deliverables:

- Submission of TERO review of project employment and contracting plan
- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Conceptual Designs (100% complete)

Project Conceptual Designs were completed as part of the project development process.

Deliverables:

- Relevant Conceptual Designs

Task 2 - Design /Planning (0% complete)

Complete design details for and 65% and 100% (Final) design, plans, and specifications.

2 (a) Design /Planning: 65% Designs. Develop 65% designs and receive agency review and comments.

2 (b) Design /Planning: 100% Designs. Revise 65% designs into 100% designs based on agency review.

Deliverables:

- 65% designs in AutoCAD
- Stamped 100% designs in AutoCAD

Task 3 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare draft Environmental Impact Reports (EIR) and release document for public review. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Draft and Final EIR
- Copy of Notice of Completion
- No Legal Challenges letter

Task 4 - Permit Development (0% complete)

Acquire the following permits:

4 (a) Permit Development: ESA Section 7. Apply to be covered by NMFS's regional restoration biological opinion for ESA coverage.

4 (b) Permit Development: Hoopa Valley Tribe Riparian Review. Complete the riparian review process per tribal ordinance.

4 (c) Permit Development: National Historic Preservation Act Section 106 Consultation. Consult with the SHPO per NHPA Section 106 requirements.

4 (d) Permit Development: USACE Nationwide Permit #3. Apply to USACE for NWP#3 coverage.

Deliverables:

- ESA Section 7. Final application and acceptance letter from NMFS.
- Hoopa Valley Tribe Resolution accepting the project signed by the Tribal Council.
- Complete National Historic Preservation Act Section 106 Consultation.
- USACE Nationwide Permit #3. Final application and approval from USACE.

Task 5 - Engineering and permitting: Sewage Infrastructure (0% complete)

Complete engineering and permitting to remove and relocate dilapidated, polluting leachfield and associated sewage infrastructure away from Supply Creek and Trinity River channels. Designs will be developed by GHD. Complete preliminary design including topographic survey and basis of design report (BOD). The BOD will provide the overall project concept for use in development of final design, plans and specifications including: preliminary earthwork calculations, preliminary design details, and 100% (Final) design, plans, and specifications.

Deliverables:

- Geotechnical Report
- Complete engineer drawings

- Associated required permits
- 100% Design Documents

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

HVT to contract with the HVT Roads Department for construction, Dr. Joshua Strange for fish biology oversight of large wood habitat feature construction, Michael Pulley, licensed surveyor, for survey stakeouts, geormorphic construction oversight by McBain Associates, and a licensed engineer to complete Performance Monitoring.

Deliverables:

- Completed contracts approved by the Hoopa Valley Tribal Council.
- Notice(s) to proceed

Task 2 - Survey Stakeout (0% complete)

Establish site control and complete survey stakeout per 100% designs.

Deliverables:

- Summary of site preparation and survey stakeout activities in monthly reports

Task 3 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring. Equipment mobilization; clearing and grubbing work and access areas; install erosion control; dust abatement. Includes mobilization and demobilization for septic relocation.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 4 - Project Construction/Implementation: Removal of Bair Road/levee and removal /relocation of septic infrastructure (0% complete)

Decommission Scale Shack (lower Bair) Road; excavate old septric infrastructure and relocate; haul all material off-site. Lower floodplain surfaces and protect water quality.

Deliverables:

- Photographic documentation
- Summary of site implementation activities in monthly reports

Task 5 - Project Construction/Implementation: Riparian revegetation (0% complete)

Grow native and locally appropriate plants for revegetation.

Deliverables:

- Nursery plant lists
- Summary of site implementation activities in monthly reports

Task 6 - Phase 1 Construction Implementation-Construction (0% complete)

Non-state matching funds and state grant contributions to the implementation project. National Resource Conservation Service grant to support Phase 1 implementation work on Supply Creek upstream of Loop Road as well the north bank

between Loop Road and Hwy. 96. Completed Phase 1 construction October 2015. This phase also included support from the California Department of Fish and Wildlife Fisheries Restoration Grant Program.

Deliverables:

- Matching funds documentation

Task 7 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 8 - Water Pollution Prevention Plan (0% complete)

Complete a Water Pollution Prevention Plan to ensure water quality protection throughout construction.

Deliverables:

- Completed Water Pollution Prevention Plan

Task 9 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification. The performance of the project will be monitored by a licensed engineer to ensure it is constructed to meet 100% design specifications.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 10 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring. Septic relocation construction services. On-site technical assistance provided by project designer. Indirect administrative tasks associated with support services for tribal employees.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Photographic documentation

PROJECT: Community Test Wells and Water Security Study

IMPLEMENTING AGENCY: Hopland Band of Pomo Indians

Project Description:

The Hopland Band of Pomo Indians Test Wells and Community Water Security Project will identify 3 test well sites, drill and monitor the wells, and create the legal framework for a collaborative working relationship between the Hopland Band of Pomo Indians and Hopland Utilities District. The test wells will be located in the town of Hopland, Mendocino County, with access to the Hopland Utility District infrastructure. Researching the location for an additional well will benefit not only the nearly 300 residents of the Hopland Reservation, but also the residents of the town of Hopland. Both communities are dependent on one shared well for their drinking water, with one small back up well that is inadequate for either community.

Given the uncertainty of the impacts of climate change, the current drought situation, and the lack of back-up drinking water for the Hopland Tribe and Hopland Community this project is a high priority for the security of the greater Hopland area. Developing a collaborative relationship for the management of water resources between the Hopland Tribe and Hopland Water District is a vital step in not only managing drinking water, but also laying the groundwork for collaborative sustainable management of the Hopland area groundwater basin and surface water resources for the Hopland Tribe and Hopland Community. Tasks towards this end include meetings and telephone conferences to discuss opportunities and challenges between the Hopland Tribe and Hopland Community.

Goals and objectives:

Goal 1: Establish legal framework for Hopland Band of Pomo Indians (HBPI)/Hopland Water District Collaboration

- Formation of a working group to develop outline of HBPI/Hopland Water District Collaboration.
- Research existing models of Tribal/Utility District collaborations
- With legal assistance develop Tribal/Utility District contract to proceed with test wells

Goal 2: Drill and monitor three test wells in the Hopland area

- Identify and prioritize 3 test well sites
- With legal assistance procure easements from land owners
- Drill and monitor 3 test wells
- Graph results for water quality

Goal 3: Utilize test well results to research funding for drilling production well

- Analyze test well results for drinking water quality
- Prioritize test wells, water quality, location, potential gpm
- Develop strategy for construction of production well
- Develop strategy for infrastructure for new well

Standards to be used in project implementation:

This project will adhere to OSHA standards for all employees and contractors. On-site safety during well drilling will be closely monitored. The laboratory analysis will be conducted by a certified lab, Alpha Analytical in Ukiah, following EPA drinking water lab parameters.

Summary of work completed to date:

The Hopland Band of Pomo Indians EPA Department analyzed and developed a number of reports pertaining to the Hopland Reservation water resources: well reports on and off the Hopland Reservation, hydrology reports on the Reservation, geological reports on the Reservation, water monitoring and chemical analysis of the well and surface water

on the Reservation. To ensure responsible water use the Hopland Band of Pomo Indians developed and implements a Drought Contingency Plan. Following is a list of technical documents developed for the project:

- DWR Groundwater Monitoring Well Installation Dry Year Groundwater Monitoring Program Mendocino County Feb. 2003
- Hopland Band of Pomo Indians EPA Department Well Sampling Results, 2005-2007
- Hopland Public Utility District test wells sites map 2016

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with, consultants/contractors and partnering agencies including the Hopland Band of Pomo Indians EPA Department, Tribal Council and the Hopland Water District.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt

County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Easements for sites/contracts with Hopland Public Water System (0% complete)

Negotiate easements with landowners for test wells, negotiate collaborative working agreement with Hopland Public Water System, submit to legal council for approval.

Deliverables:

- Copies of contract with Hopland Public Water System to collaborate on test well
- Copies of easement agreements with landowners for drilling of test well
- All relevant documentation regarding property acquisition of easement including final recorded deed, title report, etc.

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Permit Development: County Well Drilling Permit (0% complete)

Acquire County Well Drilling Permit (Three at $390 each)

Deliverables:

- Three County Well Drilling Permits

Task 2 - Well Water Sampling (0% complete)

Have a certified lab test the well water quality. Results of test wells including but not limited to: VOC's Nitrates, Nitrites,phosphorus, TTP's. TDS, conductivity, ph, 17 metals including arsenic, boron, barium, TSS, turbitiy, bicarbonates.

Deliverables:

- Well water lab test results and report

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid packets for test wells
- Proof of Advertisement
- Copy of signed contract for digging test wells

Task 2 - Project Construction/Implementation: Test Wells (0% complete)

Review submittals, drill test Wells, and prepare technical memo

Deliverables:

- Completed construction tasks documented in progress reports
- Technical memo

Task 3 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Completed construction close out tasks documented in monthly progress reports
- Project completion site photos

Task 4 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 5 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Notice of Completion

PROJECT: Restoring Stream Flow and Fish Passage on the Eel River Delta

IMPLEMENTING AGENCY: Humboldt County Resource Conservation District

Project Description:

The Humboldt County Resource Conservation District (HCRCD) project site is located in the Salt River watershed on the northern coast of California in Humboldt County, approximately 15 miles south of the city of Eureka. The Salt River watershed encompasses 47 square miles and lies within the larger Lower Eel River delta and encompasses the City of Ferndale. All construction work will be performed in the project footprint which includes Francis Creek (approx. 0.5 miles) and its confluence with the Salt River.

The project purpose is to restore habitat, hydrologic function and connectivity between Francis Creek, Salt River, and the Eel River Estuary as part of a multi-phase, watershed-scale restoration, known as the Salt River Ecosystem Restoration Project (SRERP). The Francis Creek project area is directly upstream of restoration work completed in 2013 and 2014 to greatly enhance tidal prism and streamflow by restoring 330 acres of tidal marsh and 3.3 miles of Salt River channel and riparian floodplain upstream of the Eel River Estuary.

The major components of the HCRCD project include excavation and hauling per design specifications to re-establish connectivity between Francis Creek and the Salt River and to rehabilitate and restore the lower 2,745 feet of Francis Creek. Native riparian vegetation will be installed on the floodplain to create a diverse riparian area, protected by livestock exclusion fence. To accommodate the wider and deeper channel the existing agricultural bridge over the creek will be replaced with a 55 ft. bridge. The project will construct a non-hardened sediment management area near the confluence that enables off-channel sediment retention and management while not impeding fish passage.

This proposed project benefits residents, agricultural producers, and fish and wildlife. Construction activities will widen and deepen 2,745 feet of a heavily aggregated creek channel where the current capacity to convey winter storm flows has been severely limited and causes repeated heavy flooding and sedimentation to area residents, agricultural producers, and County roads. This larger channel will relieve flooding and inches of sedimentation accumulation on roads and will allow ingress and egress to residents immediately living in the area and to satellite communities. Area residents and agricultural fields will no longer be inundated with water and sediment; therefore property values will rise and agricultural livestock forage will be available year round. A non-hardened sediment management area near the confluence of the Salt River and Francis Creek will enables off-channel sediment retention and management while not impeding fish passage. The excavation of the channel will provide long lost fish passage from the Salt River to Francis Creek's 5.2 miles of historic fish habitat.

Goals and objectives:

Goal 1: Flood Alleviation

- Widen and deepen Francis Creek channel to increase capacity and conveyance
- Re-connect Francis Creek to the Salt River channel
- Develop a sediment management area at the confluence of Francis Creek and Salt River that provides a controlled area for suspended sediment to deposit to reduce aggradation
- Replace undersized agricultural bridge on Francis Creek

Goal 2: Habitat Restoration

- Provide fish passage to 5.2 miles of historic anadromous habitat by re-connecting Francis Creek to newly restored Salt River channel
- Enhance habitat and diversity by installing wood structures
- Remove invasive vegetative species such as Canary Reed Grass and restore native vegetation
- Restore freshwater input to the Salt River channel to improve fish habitat

Goal 3: Water Quality Improvement

- Construct a sediment management area to retain sediment and release clean water into Salt River
- Connecting Francis Creek to the Salt River will provide a critically needed freshwater input that has been lacking for nearly 30 years
- Restore hydraulic function and velocity to effectively transport sediment and other areas along the floodplain to passively trap sediment
- Construct fencing to exclude livestock from lower Francis Creek

Goal 4: Improve agricultural productivity

- The Project will improve drainage on adjacent agricultural lands during wet winter periods and allow utilization of over 800 acres of agricultural lands to local producers

Goal 5: Improve local municipal operations

- Provide freshwater conveyance through Francis Creek to the Salt River for the City of Ferndale's Waste Water Treatment Plant dilution

Standards to be used in project implementation:
All construction/implementation related tasks will follow current standards and Best Management Practices (BMP'S) employed in the restoration and conservation fields to date. All work to be completed will be depicted in a 100% complete set of engineered plans and specifications stamped by the engineering firm under contract with the HCRCD and subsequently reviewed and approved by all participating funding and regulatory agencies:

- Clear water diversion and dewatering will follow CDF&W fish relocation protocols, RWQCB erosion control BMP's and SWPPP compliance measures. The contractor will develop a clear water diversion plan submittal to the HCRCD and the Construction Manager for review, approval, and compliance with all permit conditions and BMP standards.
- The existing agricultural bridge will be demolished following accepted safety and construction standards, and the materials will be hauled to an accepted and permitted disposal site.
- Mobilization, site preparation, and excavation will follow current standards as depicted in the above mentioned plans and specifications. All equipment and personnel will access the site via rocked construction entrances to reduce erosion, all excavation will follow the excavation cross-sections and typical details within the plans, and all disturbed areas will receive native seed and mulch following the plans and accepted standards to eliminate potential erosion during winter rains. Daily inspections will occur by the Construction Manager/Inspector under contract with the HCRCD.
- The 55ft pre-manufactured agricultural bridge will be delivered and installed onto pre-cast concrete footings following the manufacturer's specifications as depicted in the above mentioned plans and following current standards and BMP'S. Following installation, all disturbed areas will receive native seed and mulch following the plans and accepted standards to eliminate potential erosion.
- Following the completion of the above described construction/implementation tasks, cattle exclusion fencing and gates will be installed following Natural Resources Conservation Service (NRCS) standards.

Summary of work completed to date:
Restoring Francis Creek (one of 3 main tributaries to the Salt River) is integral to the larger Salt River Ecosystem Restoration Project and the City of Ferndale flood control efforts. Salt River Ecosystem Restoration Project (SRERP): to date restored 330 acres of tidal estuary, 3.7 miles of severely aggraded river channel, floodplain, wetlands, riparian. As part of the SRERP, the HCRCD has completed 35 projects for sediment reduction and stream bank stabilization in the Van Duzen River Watershed, 31 such projects in the South Fork Eel River Watershed, multiple cooperative habitat restoration projects in the upper Salt River Watershed in coordination with private landowners and NRCS. Following is a list of technical documents developed for the project:

- 90% Engineering Design Plans

- Draft Basis of Design Report (vol 1-3)

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies involved in SRERP including NRCS, CDFW, Ca Coastal Conservancy, USFW, NOAA, USACOE, and City of Ferndale.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Planning (90% complete)

Finalize designs and plans to 100% (Final) design, plans, and specifications for bidding and contracting.

Deliverables:

- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (100% complete)

Provide Final EIR, Copy of Notice of Completion and No Legal Challenges letter.

Deliverables:

- Final EIR
- Copy of Notice of Completion
- No Legal Challenges letter

Task 3 - Permitting (100% complete)

Provide copies of the following permits, all of which have been secured.

3 (a) **Permit Development: Co. Humboldt Conditional Use Permit.** secured, update as needed

3 (b) **Permit Development: NCRWQCB Water Quality Cert.** secured

3 (c) **Permit Development: USFWS Tidewater Goby BO.** secured

3 (d) **Permit Development: CDFW Streambed Alteration Agreement 1600**. secured

3 (e) **Permit Development: NOAA/NMFS Federal BO.** secured

3 (f) **Permit Development: CA State Lands Commission Lease.** secured

3 (g) **Permit Development: Co Humboldt Building and Grading Permit.** Update for 2016 work

3 (h) **Permit Development: CA Coastal Commission CDP.** secured

3 (i) **Permit Development: USACOE 404.** secured

Deliverables:

- Copies of all required permits

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

The Humboldt County Resource Conservation District (HCRCD) will assure all project permits are in order; develop invoices with support documentation; provide audited financial statements; oversee and support construction of the project; be the liaison between landowners and the construction contractor; perform and/or coordinate project performance monitoring; and write and submit required reports. Two years of post-construction effectiveness monitoring will be coordinated and/or performed by the HCRCD.

A construction management subcontractor(s) will provide services relating to construction bidding and contracting. These services include developing bid and contract documents, conduct bid advertising, hold a mandatory pre-bid walk, evaluate bids, review and approve insurance bonds. Once construction begins a construction management subcontractor will administer the construction contract; provide project oversight, inspection, and photo documentation, and keep daily records of construction activities.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Contractor will mobilize equipment and supplies in approved staging areas, conduct all pre-project site monitoring and road condition reviews, install any temporary access points needed.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation (0% complete)

3 (a) Project Construction/Implementation: Water Management. Install and Maintain Clear-Water Diversion and Dewatering - 60 Days

3 (b) Project Construction/Implementation: Excavation. Excavation, Off Haul and re-use on Agricultural Uplands ~ 4,500 CY of sediment

3 (c) Project Construction/Implementation: Demolish Ag Bridge. Demolish, remove, and dispose existing concrete agricultural bridge

3 (d) Project Construction/Implementation: Install. Install cattle exclusion fencing and gates per specifications

3 (e) Project Construction/Implementation/Materials/Supplies: Pre-manufactured 55' bridge. Native seed and Mulch. Purchase and deliver 55ft pre-manufactured bridge. Install with pre-cast concrete spread footings and approaches. Purchase and application of native seed and mulch for erosion control

Deliverables:

- Summary of clear-water diversion in monthly reports with photos
- Summary of construction activities in monthly reports
- Photographic documentation

Task 4 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the project permits, HMMP and Adaptive Management Plan.

Deliverables:

- Annual monitoring summary; Final Project Monitoring Report
- Pre and post photographic documentation

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. An engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Summary of construction or engineer's report

PROJECT: Lewiston Valley Drinking Water Intertie Pipeline

IMPLEMENTING AGENCY: Lewiston Park Mutual Water Company

Project Description:

There are two drinking water treatment and distribution companies that serve the most population concentrated neighborhoods of the rural town of Lewiston. One company, operated by the Lewiston Community Services District (LCSD) serving about 66 homes and businesses, has a brand new facility (operational in Aug. 2015) for the treatment and storage of surface water from the Trinity River. The other company Lewiston Park Mututal Water Company (LPMWC) uses groundwater supplied from 5 wells and serves 167 homes, small businesses and an elementary school. During the recent drought conditions the wells have drastically declined production necessitating pumping water from the Trinity River to meet the needs for the LPMWC customers. In 2014, the summer well production had dropped 44%; in June 2010, the LPMWC wells produced 7.5 million gallons, as compared to 4.2 million gallons in June 2014. Because the LPMWC surface water treatment plant is old and inadequate, a Boil Water Notice is required to be issued whenever surface water is pumped into the distribution system.

In order to promote beneficial water use and water security for the Lewiston communities the project proposes to join the two drinking water systems by an intertie pipeline to allow the sharing of water between the two systems in emergency situations. The two drinking water treatment facilities described above are close in proximity and the intertie would provide improved water availability and water security for the customers of each system, especially during drought conditions and provide accessible water for firefighting efforts.

Goals and objectives:

Goal 1: Provide safe drinking water and water security for the Lewiston Valley communities

- Secure funding to plan for and install an intertie pipeline between the two company's facilities
- Unification with or cooperation between the two drinking water companies in the Lewiston Valley during drought emergencies, fire emergencies, or other emergencies
- Develop a Memorandum of Understanding with the LCSD regarding sharing of water during emergencies' caused by fire or severe drought conditions

Goal 2: Drought Preparedness

- Measurable reduction of water usage by customers to delay use of surface water and the issuance of Boil Water Notices
- Continuous water conservation education through flyers and door hangers to each residence and in newsletters that go out with monthly bills
- Complete installation of water meters on each customer service connection
- Adoption of new water rates based on metered usage when all meters have been installed
- Enforcement of drought contingency policies adopted by the company's Board of Directors and in compliance with drought emergency regulations

Goal 3: Provide safe drinking water to the LPMWD customers

- Optimize ground water availability from current wells by replacing old pumps as a priority and as funding becomes available.
- Daily monitoring of well production and chlorine residuals
- Compliance with all periodic testing of source water and end point drinking water as required by the State Water Resources Control Board.

Standards to be used in project implementation:
Domestic water systems in California are regulated by the California Department of Public Health. Laws and regulations pertaining to design, construction and operation of public water systems are detailed in California Code of Regulations, Title 22. The American Water Works Association (AWWA) has developed standards by which all components in a public water system must meet. As such technical specifications will be provided in the construction bid documents which detail the material and performance requirements for all equipment and materials used on the project. Prior to construction, the Engineer reviews and approves submittals for each component and a field construction observer verifies their use in construction of the improvements.

Summary of work completed to date:
Following the death of the long-time plant operator in 2012, the LPMWC was in a state of turmoil. Since then the LPMWC has worked diligently to upgrade the governance structures and infrastructure of the LPMWC to comply with state regulations and improved the water quality and security for its community. In 2013, the community voted to convert the LPMWC to a not-for-profit mutual benefit company.

In 2014, the LPMWC was awarded a $224,604 grant for water meter installation on all the LPMWC customers through the NCRP 2014 IRWM Drought Project grant. A number of these water meters have been installed and are operational. Also in 2014, GHD and Waterworks Engineers developed the Alternatives Analysis for Improved Drinking Water Quality report for the LPMWC through the NCRP Disadvantaged Water and Wastewater Providers Program that outlines the intertie option.

The LPMWC submitted a Planning Application for funding under the Tier 2 Safe Drinking Water State Revolving Fund (SDWSRF) to provide bid-ready construction documents for a project that will provide safe and reliable drinking water for the community of the Lewiston Park subdivision. When the Planning Grant feasibility study is completed the LPMWC will be seeking funding to complete the construction project. In the meantime, following the completion of upgrades and construction projects for the LCSD Water system, it will be feasible to install an intertie pipeline between the water storage tanks of the two drinking water systems. This will allow water to be shared between the two systems for emergency situations including safe drinking water in times of severe drought conditions and fighting structure and vegetation fires by allowing localized fire hydrants to be charged. The following technical documents have been developed for the project:

- Demonstration Project for Lewiston Park Mutual Water Company Alternatives Analysis for Improved Drinking Water Quality; Technical Assistance for Disadvantaged Water and Wastewater Providers, North Coast Resource Partnership, California Department of Water Resources, September 2014
- Lewiston Park Mutual Water Company, Drought Contingency Plan, 2015

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including the LCSD, California Department of Health, SWRCB and the LPMWC non-profit Board of Directors.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices

- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points.

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Task 6 - Develop MOU with Lewiston CSD (0% complete)

Develop rules governing the use of water through the intertie pipeline jointly with the Lewiston Community Service District Board of Directors. Legal counsel may be consulted.

Deliverables:

- Resolutions of the Boards of LCSD and LPMWC to enter into MOU agreement

Category (b): Land Purchase/Easement

Task 1 – Site Surveying and Access Agreements (0% complete)

Contract Surveyor to survey pipeline right of way, determine land access needs, obtain land use appraisals, and negotiate easement agreements. Legal counsel may be contracted. No land purchase anticipated. Planned site follows county road easements.

Deliverables:

- Survey map of right of way with parcels
- Appraisals for easements
- Copies of draft and final contract(s)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Planning (0% complete)

Design pipeline, supporting structure, trenching and backfilling, surface restoration, valving, pressure reducing devices, hydrants, meters, connections to existing distribution systems. Coordination with SWRCB DDW and Lewiston CSD.

Deliverables:

- Engineering design, specifications, and bid documents
- Construction cost estimate and schedule
- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Environmental site reconnaissance and preparation of Mitigated Negative Declaration, including recommended mitigation. Coordination with agencies and Trinity County.

Deliverables:

- Copy of Notice of Preparation
- MND ready for circulation with State Clearing House
- No Legal Challenges letter

Task 3 - Permitting (0% complete)

3 (a) Permit Development: Encroachment Permit. Trinity County Planning Department, easement along county roads. County Road Department for work permits

3 (b) Permit Development: SWRCB. State Water Resources Control Board, submission and approval of plan

Deliverables:

- Trinity County Encroachment Permit
- SWRCB Use Permit

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Verify contractor's Insurance coverage
- BOD Resolution to enter into construction contract(s)
- Award of contract
- Notice to proceed

Task 2 - Project Construction/Implementation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring. Intertie construction mobilization, construction, engineering services during construction, contractor project closeout.

Deliverables:

- Summary of site preparation & construction activities in monthly reports
- Photographic documentation
- Engineers Certification

Task 3 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 4 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 6 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: Lower Mattole River and Estuary Enhancement and Drought Resiliency Project
IMPLEMENTING AGENCY: Mattole Restoration Council

Project Description:

The Lower Mattole River and Estuary Enhancement and Drought Resiliency Project is part of a larger 5-year restoration effort that is being undertaken by the Mattole Salmon Group, the Mattole Restoration Council, the California Department of Fish and Wildlife, The State Coastal Conservancy, the California Department of Water Resources, The Nature Conservancy, the U.S. Bureau of Land Management, NOAA-NMFS, the National Fish and Wildlife Foundation, and the U.S. Fish and Wildlife Service, and private landowners. The project will restore ecosystem processes to the Mattole estuary and lower Mattole River, while enhancing habitat for fish and wildlife species and addressing drought issues. The project will increase the estuary's drought resilience through improved habitat conditions in the primary salmonid use area during droughts. This will be accomplished through the following two project components:

- Component 1. Riparian and Floodplain Restoration –Propagate and install 17,000 containerized riparian plants, treat 1,900 ft. terrace margin, install 6000 ft. of livestock exclusion fencing, installation of 11,000 ft. of trenched large willow, and removal of invasive plants on 10 acres.
- Component 2. In-stream Habitat Enhancement -Placement of 400 whole trees in various estuary location, trees will be removed from grassland encroachment areas and planted with native grasses to restore 4 acres of coastal prairie.

Goals and objectives:

Goal 1: Address salmonid habitat needs by enhancing riparian and in-stream habitat

- Place 400 whole trees in estuary locations as whole tree structures to increase scour pools and bar building
- Install 11000 ft. of trenched willow baffles
- Collect 200 lbs of native seed, propagate and plant 17000 riparian plants, and protect with livestock fencing
- Remove invasives including tansy ragwort, Japanese knotweed, Scotch broom, French broom, English ivy, and broadcast native seed onto removal sites

Goal 2: Restore and protect wetlands

- Protect 700 feet of eroding streambank with whole tree stream barbs
- Plant trenched willow on stream banks and off-channel slough

Goal 3: Increase drought resiliency in the Lower River and Estuary

- Remove 400 whole trees encroaching on native prairies
- Plant drought tolerant carbon sequestering native bunch grasses on tree removal sites
- Place 400 whole trees in riverine locations reducing decomposition and GHG emissions

Goal 3 Objective: Plant riparian vegetation to increaase ground water infiltration and retention, lower water temperatures and increase streamflow

Standards to be used in project implementation:

Mattole Restoration Council (MRC) will follow DFW manual for project design and OSHA health and labor compliance standards for personnel.

Summary of work completed to date:

This project is part of the ongoing Lower Mattole River and Estuary Habitat Enhancement project. This is an effort by the above partners to restore the Lower Mattole River and Estuary. To date **MRC** ha**s**placed 200 whole trees in the estuary, planted 5000 willow cuttings in deep trenched baffles, 10,000 riparian plants, protected 1200' of terrace margin, restored 3 acres of coastal prairie, and excavated 250' of off-channel slough habitat.

There are three phases of the Project proposed herein: (1) pre-project planning, design, permitting, and monitoring, (2) implementation, and (3) post-implementation assessment and monitoring. This proposal seeks funds for implementation primarily. CEQA documentation and most of the planning for the project are complete. Following is a list of technical documents developed for the project:

- Lower Mattole River and Estuary Riparian Enhancement Plan, MRC 2014
- Mattole Estuary Restoration Plan, 2012-2017, BLM, USFWS, NOAA, MRRP, DFW, Arcata, 2012

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including BLM, local landowners, SCC, DFW, TNC, NFWF, USFWS, DWR, the County of Humboldt, and Sanctuary Forest.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (50% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request; Copy of agreement with Labor Compliance Monitoring company

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Planning (0% complete)

Organize Technical Advisory Committee meetings to review preliminary design and basis of design. Develop 100% (Final) design, plans, and specifications.

Deliverables:

- TAC Minutes
- Participant list
- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (100% complete)

Provide project CEQA Mitigated Negative Declaration (MND) documentation and letter stating no legal challenges.

Deliverables:

- Copy of CEQA MND
- No Legal Challenges letter

Task 3 - Permitting: DFW 1600 permit and Botanical and Archeological surveys (100% complete)

DFW 1600permit is secured and all Botanical and Archeological surveys are complete.

Deliverables:

- Copies of all required permits

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Project Construction/Implementation: Fencing; willow planting; native ecosystem restoration (5% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies and conduct pre-project site photo-monitoring. Install 6000 ft. of livestock fence; install 11,000 ft. of trenched willow; install 17,000 native plants; invasive plant removal on 10 acres.

Deliverables:

- Summary of site preparation and implementation activities in monthly reports
- Photographic documentation

Task 3 - Project Construction/Implementation: Heliwood Mobilization (50% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies and conduct pre-project site photo-monitoring. Construction of project components:

- Heliwood mobilization and placement: excavate 400 trees, place 400 trees in Estuary
- Grade/Seed /Mulch 4 acres of tree removal sites
- Photo-documentation

Deliverables:

- Summary of site preparation and implementation activities in monthly reports
- Photographic documentation

Task 4 - Project Construction/Implementation: Bank Stabilization (10% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies and conduct pre-project site photo-monitoring. Stabilize eroding streambank: treat 1900 feet of terrace margin and eroding streambank with whole tree stream barbs.

Deliverables:

- Summary of site preparation and implementation activities in monthly reports
- Photographic documentation

Task 5 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 6 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification including plant survival surveys; fish use dives & water quality monitoring.

Deliverables:

- Photographic documentation
- Final report at project completion to include data on plant survival, water temperature, dissolved oxygen, nutrient levels, macroinvertebrate and fish-use surveys

PROJECT: Implementing On-Farm Water Conservation Projects in the Navarro to Address Critical Low Flows

IMPLEMENTING AGENCY: Mendocino County Resource Conservation District

Project Description:

To provide relief from critically low summer base flows and water shortages in the Navarro River, Mendocino County Resource Conservation District (MCRCD), working with Natural Resources Conservation Service (NRCS) and The Nature Conservancy (TNC), proposes to implement (3) on-farm projects to achieve measurable water savings through improved irrigation and water storage BMPs. Community conflicts have accelerated in the Navarro watershed over the perceived misuse of water by the Ag Community (Ag) during the record 4-year drought period. MCRCD will work with Ag partners to implement water conservation/water-use efficiency projects to demonstrate water saving measures, including water storage and water-use efficiency, specifically in orchards and small farms. Projects include:

- Implementing (3) water conservation/water use-efficiency projects: including installing (1) 40,000 gallon rainwater storage tank, upgrading (1) failing/faulty irrigation system, and retrofitting sprinkler heads on 13 acres of organic apple orchard, retrofitting (1) 61.1 acre commercial apple orchard to under-tree microsprayers, collectively resulting in 31.1 acre feet of annual water savings.
- Conduct a series of (3) workshops and tours, targeting (90) landowners, that highlight BMPs, techniques and technologies demonstrating measurable water savings to other Ag producers and landowners in the watershed.

Anticipated physical benefits and intended outcomes include improved efficiency in water distribution lines, reduced water losses due to leaks, reduced water usage and reliance on surface water and groundwater that result in an annual water savings of more than 30 acre feet.

Goals and objectives:

Goal 1: Implement Water Conservation Projects that result in measurable increases to low summer flows

- Retrofit 61.1 acres to microsprayers
- Upgrade 13.0 acres of orchard irrigation systems to increase efficiency of water use
- Install (1) 40,000 gallon rainwater catchment tank to store water and reduce summer diversions

Goal 2: Outreach to 90 rural/Ag water users on water conservation/water-use efficiency technologies

- 90 participants will learn about water conservation/use efficiency during (3) workshop/tours of demonstration projects

Standards to be used in project implementation:

NRCS standards will be adhered to for the irrigation upgrades on both of the Apple Farm projects. Engineered design plans and Mendocino County Building Code requirements will be followed for the installation of the rainwater catchment tank on the vegetable farm.

Summary of work completed to date:

This Project is ready to implement upon notification of funding and contracting with County of Humboldt. Landowners have signed letters of support, and MCRCD is working with NRCS and The Nature Conservancy to document both cash and in-kind match. These organizations have all prioritized working in the Navarro in recognition of the urgent need to address water conservation and time of use in the watershed. The following technical documents have been developed for the project:

- Meeting Agricultural Needs in the Navarro Watershed, UCCE, 2013

- Staff Report Supporting the Policy for the Implementation of the Water Quality Objectives for Temperature and Action Plan to Address Temperature Impairment in the Mattole, Navarro, and Eel River Watershed, NCRWQCB, 2013

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including NRCS and TNC.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). MCRCD staff files for Categorical Exemption. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Copy of Categorical Exemption
- No Legal Challenges letter

Task 2 - Permit Development: Building permit (0% complete)

MCRCD staff to secure a Mendocino County building permit for 40,000 gallon storage tank. Note: Environmental compliance permits (CDFW, Army Corps, Water Board) are not expected to be needed for this project.

Deliverables:

- All required permits including Mendocino County building permit

Task 3 - Final Design/Plans: NRCS Irrigated System Engineered design (60% complete)

NRCS Engineered design for upgrading one13 acre orchard irrigation system and retrofit sprinkler heads**.**

Deliverables:

- 100% Design Documents

Task 4 - Final Design/Plans: NRCS Engineered Microsprayer Design (50% complete)

NRCS engineered design for replacing hand move sprinklers with microsprayers and replacing overhead sprinklers with under-tree microsprayers on 61.1 acre orchard

Deliverables:

- 100% Design Documents

Task 5 - Final Design/Plans: Rainwater storage tank (0% complete)

Secure engineered plans for 40,000 gallon rainwater storage tank. Conduct Soils Analysis Report, contract with engineering firm for engineered design plans that meet County Building Code.

Deliverables:

- Soils Analysis Report
- 100% Design Documents

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed. Contract with licensed firm that provides tank and installation service, and site preparation.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring

Deliverables:

- Summary of site preparation activities in monthly reports
- Documentation of tank foundation built to County code requirements
- Pre-project site photos

Task 3 - Project Construction/ Implementation: Install 40,000 gallon tank (0% complete)

Install tank, gutters, pumping/conveyance system. Keep daily records of construction activities, inspection, and progress; 2. Conduct project construction photo-monitoring; 3. Construct project components

Deliverables:

- Summary of construction activities in monthly progress report
- Photographic documentation
- Engineers Certification

Task 4 - Project Construction/ Implementation: Upgrade faulty mainline and retrofit sprinkler heads (0% complete)

Order and install underground mainline pipe, pump, above ground hand moveable pipes (for uniformity), and sprinkler heads. Upgrade (1) faulty mainline and retrofit sprinkler heads in 13 acres of organic orchard.

Deliverables:

- Summary of construction activities in monthly progress report
- Photographic documentation
- Engineers Certification

Task 5 - Project Construction/ Implementation: Install microsprayers and irrigation water management (0% complete)

Order and install pipe and microsprayers on 61.1 commercial apple orchard acres.

Deliverables:

- Summary of construction activities in monthly progress report
- Photographic documentation

Task 6 - Manage construction and coordinate (3) workshops (0% complete)

Manage and/or coordinate (3) implementation projects, coordinate (3) workshops (Identify date, venue, and create agenda for workshops. Prepare presentation, flyers, advertising).

Deliverables:

- Summary of construction activities in monthly progress report
- Attendance sheets
- Power Point presentations
- Copies of agendas and advertising

Task 7 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 8 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification. Landowners will be required to meter and measure their water use and record water savings. A PAEP will be developed by MCRCD to evaluate and guide project performance.

Deliverables:

- Water savings data recorded (landowner)
- Photographic documentation
- Project Monitoring Report

Task 9 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Completed construction administration tasks documented in monthly progress reports

PROJECT: Water Conservation Technical Assistance to Mendocino County Tribes

IMPLEMENTING AGENCY: Mendocino County Resource Conservation District

Project Description:

Water Conservation Technical Assistance to Mendocino County Tribes proposes to provide water audit technical assistance and training to assist Tribal water suppliers in meeting water conservation goals; to provide leak detection for distribution systems; to explore and facilitate the creation of a smartphone app for small suppliers that will ultimately be available to Tribes and small water suppliers throughout California; and to partner with Rural Community Assistance Corporation to extend the reach of the technical assistance beyond Mendocino County.

The project will consist of the following components:

Water Audit Technical Assistance and Conservation Education with participating Tribes within inland Mendocino County

- Conduct six to nine "demonstration" water audits of Tribal residences and/or offices
- Distribute fifty or more water conservation kits and water conservation devices

Benefits: Identification and remediation of water wasting fixtures, water usage savings of 5-25% per household audited. Increased capacity for Tribal water managers and staff to conduct water audits. 400+ Tribal members reached through trainings and meetings.

Access to New Technology for Unserved Communities

- Assess Tribal interest in a customer usage app and liaise with a software company or a university to explore options for app development.
- Explore how to adapt existing software for a small supplier and to identify the most useful components of the software.

Benefits: Initial development of a smartphone app for Tribes with potential for usage statewide.

Leak Detection for Distribution Systems at selected tribal water distribution systems

- Identify systems with aging and/or compromised distribution systems.
- Contract with and oversee the work of leak detection company for leak detection documentation for up to 10 miles of distribution lines.

Benefits: Improved efficiency in water distribution lines and reduced losses due to leaks, resulting in up to 20% reduction in water usage and reduced reliance on surface water and groundwater.

Partnership with Rural Community Assistance Corporation (RCAC) at regional Native American Water Masters Association (NAWMA) meetings throughout northern California.

- Attend four RCAC sponsored meetings for Tribal water managers
- Present at two RCAC sponsored meetings for Tribal water managers

Benefits: Extend the reach of grant related training and technical knowledge to Tribes throughout the northern California.

Goals and objectives:

Goal 1: To provide training for Tribal water managers to conduct water audits

- Build capacity with Tribal water managers and staff
- Conduct six to nine "demonstration" water audits of Tribal residences and/or offices
- Distribute fifty or more water conservation kits and water conservation devices

Goal 2: To facilitate the development of a water conservation app designed for small systems

- Conduct a needs assessment of all interested Tribal water managers to identify if and how they would benefit from the technology
- Identify an appropriate entity to develop the app (software company or university)
- Work with RCAC, Tribes and the software designer to identify data compatibility issues, identify components of most value to Tribal water managers and initiate creation of the app

Goal 3: To provide leak detection documentation for up to 10 miles of distribution lines

- To provide leak detection services for identified systems

Goal 4: Partner with RCAC to deliver regional water conservation assistance and outreach

- Attend 4 RCAC sponsored meetings for Tribal water managers
- Present at two RCAC sponsored meetings for Tribal water managers

Standards to be used in project implementation:
Water leak detection, household water audits, and other water conservation strategies promoted, demonstrated and technologies transferred, through this project are based on up-to-date best management practices supported by the State of California, County of Mendocino, and not for profit organizations including the American Water Works Association. Specifically, the MCRCD will use:

- Water audit standards established by the Sonoma County Water Agency's Water Conservation Specialist on Water Audits.
- Leak detection work performed by a licensed contractor in accordance with standards established by the American Water Works Association (AWWA).

Summary of work completed to date:
This project is a direct outcome of a planning grant conducted through the NCRP in 2014, which identified water conservation priorities in Mendocino County and Tribes in the area. Previous MCRCD work with Tribes indicated that they would like assistance with water conservation outreach, training for water usage assessment and assistance with infrastructure upgrades and that significant water savings can be achieved when identified through water audits, leak detection and water saving devices. This is a second phase which includes implementation of water conservation measures, outreach and education, and monitoring/assessment tools.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering consultants/contractors, agencies, and Tribes including Sherwood Valley Rancheria, Potter Valley Tribe, Hopland Band, Coyote Valley Band, Redwood Valley Rancheria, Yokayo Rancheria, Pinoleville Pomo Nation, Guidiville Rancheria, Round Valley Reservation.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices

- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Planning (25% complete)

Tribal outreach and coordination will occur in the following ways:

1 (a) Planning: Tribal outreach within County. Telephone/Email/USPS communications with Tribal Environmental Departments to confirm support of water conservation program on their lands and provide support for project activities.

1 (b) Planning: Tribal outreach in county and regionally. Attendance at Tribal meetings including four RCAC meetings with presentations at two RCAC meetings.

1 (c) Planning: Water conservation and audit trainings. Preparation for 6-9 water conservation and audit trainings to Tribes.

Deliverables:

- Communication logs
- Copy of presentation materials
- Power Point Presentation, water audit handouts

Task 2 - Planning: Leak Detection (0% complete)

Identify and contract with leak detection company. Send request for qualifications to pre-selected firms in northern California. Review and rank responses. Select firm and enter into sub-contract to perform leak detection for up to nine Tribal systems.

Deliverables:

- Request for Qualifications document
- List of invited firms
- Rating and selection of company
- Copy of sub-contract

Task 3 - Smartphone app Planning (25% complete)

3 (a) Smartphone app Planning: Needs Assessment. Interview Tribal water managers, develop needs assessment

3 (b) Smartphone app Planning: Development. Research firms and university programs with existing relevant app development. Select firm and enter into agreement to work cooperatively on app development research.

Deliverables:

- Copy of needs assessment
- Copy of list and criteria for selecting a firm.

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to prepare and carry out contract with leak detection company and software company if needed.

Deliverables:

- Award of contract

Task 2 - Project Implementation: Water Audit (0% complete)

2 (a) Project Implementation: Water Audit Demonstrations. Six to nine water audit (interior/exterior) demonstrations at Tribal administrative offices throughout county. Provide water conservation kits to participants.

2 (b) Project Implementation: Water Audit Trainings. Basic training of Tribal Environmental Department staff in process of water audits so they can perform tasks as more homeowners become supportive of the process.

2 (c) Project Implementation: Water Audit Reports. Water audit reports of Tribal administrative offices and willing residences.

2 (d) Project Implementation: Upgrades based on Water Audit Results. Tribal Environmental Dept. staff will perform upgrades to interior and exterior water fixtures as appropriate, according to recommendations in each water audit.

Deliverables:

- Sign in sheet of participants
- Water audit report for administrative offices.
- Log of participating homes that were audited
- Documentation of fixture upgrades installed per water audit recommendations

Task 3 - Project Construction/Implementation: Leak Detection (0% complete)

3 (a) Project Construction/Implementation: Leak Detection Assessment. Identify Tribal distribution lines for leak assessment, up to 10 miles.

3 (b) Project Construction/Implementation: Leak Detection. Assist contracted leak detection firm to work at identified Tribal properties. Compile information and submit leak detection report to the appropriate Tribal administrative office.

Deliverables:

- List of distribution lines to be assessed.
- Summary table of leak detection reports

Task 4 - Implementation: Smartphone App (0% complete)

4 (a) Implementation: Needs assessment for Smartphone App. Distribute needs assessment for Smartphone app to promote water conservation on-line and through the mail.

4 (b) Implementation: Smartphone App Needs Assessment Analysis. Compile results and follow-up with targeted interviews.

4 (c) Implementation: Smartphone App Development. Work with selected firm to develop app for Tribes.

4 (d) Implementation: Smartphone App Data. Assist Tribal water suppliers to get data in format for inclusion in apps

Deliverables:

- Needs assessment results
- Progress report on app development

Task 5 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring.

Deliverables:

- Document fixture upgrades installed, water audits completed, leak detection performed.
- Project completion site photos

Task 6 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the following measurement tools and methods: Tribes contacted; Tribes willing to participate; # audits completed; number trained in simple audits; number & type of fixtures installed; miles of pipe assessed for leaks; responses to needs assessment; status of app development; rate of adoption by Tribes and rating of usefulness.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 6 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress.

Deliverables:

- Completed construction administration tasks documented in monthly progress reports

PROJECT: Instream Flow Enhancement through Water Conservation

IMPLEMENTING AGENCY: Montague Water Conservation District

Project Description:

Montague Water Conservation District (MWCD) is the largest irrigation District in the Shasta River and operates Dwinnell Reservoir, the only significant storage facility (49,000 a/f) in the watershed. The objective of MWCD has been to develop, permit and implement a comprehensive long term conservation strategy, including significant instream flow and water quality enhancements with conserved water. MWCD's long term conservation strategy is titled MWCD's CHERP (Conservation and Habitat Enhancement and Restoration Program). MWCD has worked with agencies and conservation entities to develop the project components of CHERP to address limiting factors for Coho salmon and water quality.

The project proposes to line 1.3 miles of MWCD's Main Canal where significant transmission or delivery loss occurs. In exchange for lining reaches of MWCD's Main Canal, MWCD will permanently allocate the volume of water conserved, estimated at 680 acre-feet per year, for instream benefit. MWCD is working with the SWRCB to protect the conserved water for instream use through California Water Code 1707 and change petitions. While increasing delivery dependability to MWCD's irrigators and municipal water for the City of Montague, this proposal presents numerous opportunities to enhance instream conditions in the most important spawning and rearing reach of the Shasta River, specifically for the listed SONNC coho salmon. All of the water conserved will be provided for instream use to reduce the conflict between agricultural, municipal and instream uses with the Shasta River through more efficient delivery and improved infrastructure within MWCD facilities as well as refine operations plans that meets multiple use objectives for limited water resources.

Goals and objectives:

Goal 1: By lining 1.3 miles of the MWCDs Main Canal MWCD permanently dedicate 680 a/f for instream benefit

- In order to meet Goal 1 of lining three miles of the Main Canal, MWCD and partners are actively attaining design and permitting.
- In order to meet goal 1, MWCD is submitting a Change petition to the SWRCB to add environmental and municipal uses as additional beneficial uses to Dwinnell Storage right and protect dedicated flow
- In order to meet goal 1, MWCD is seeking funding partners including grant applications to, BOR, CDFW, WCB and NOAA. MWCD is providing in-kind labor, materials and equipment as well as funding
- MWCD is working with neighbors to develop a comprehensive flow strategy to aid in resolving competitive use issues between instream needs and agricultural use in the Shasta River watershed

Goal 2: Increase dependability of all beneficial uses of water in Shasta River

- Install an efficient municipal use point of diversion for City of Montague when MWCD is not providing irrigation water via Main Canal. Accomplished 2014
- Work with agencies, interest groups to improve water quality and flow release schedule for instream benefit
- Develop Operations Plan to define timing, volume and of balanced disbursement of all beneficial uses MWCD provides for to assure uses are met to the extent practical
- Obtain Agency support and approval for operations plan and long term management plan for beneficial uses

Standards to be used in project implementation:

The Natural Resources Conservation Service (NRCS) Standards will be used including 587 Structure for Water Control and 449 Irrigation Water Management. OSHA standards will be followed for safety. Photo-point monitoring will follow accepted protocol such as that required by the State Water Board.

Summary of work completed to date:

Watercourse Engineering conducted two years of investigation summarized in Main Canal Efficiency Reports. These investigations have been repeated several times since with similar results based on the volume of delivery or transmission

loss of MWCD's Main Canal. These investigations identify the highest loss reaches where 90% of the loss occurs over 8.4 miles of the 19 miles long Main Canal. The investigation also quantifies the loss per reach allowing MWCD and partners to focus the lining efforts where they are most effective.

MWCD and has lined over four miles of the main delivery canal demonstrating the proposed lining approach of using a geomembrane liner under shot-crete as an efficient method to conserve water. MWCD has been conducting investigations, engineered designs and meeting with agencies over the past 4 years to refine the scope and attainable objectives of MWCD's long term conservation and operations plans. MWCD is actively refining engineered designs while simultaneously advancing project permitting with the intent to be construction ready in early 2016. Following is a list of technical documents developed for the project:

- Project Implementation Plans for Montague Water Conservation District, Shasta River Enhancement Dwinnel Dam Cross Channel, 2014
- Big Springs Complex Interim Instream Flow Needs, McBain Associates, 2013
- Shasta River Between Dwinnell Dam and Parks Creek -Environmental Water Monitoring Results, CDFW, 2015
- Montague Main Canal Conveyance Efficiency Study for 2009, Watercourse, Inc. 2010
- MWCD Main Canal Conveyance Efficiency Study for 2010, Watercouse Engineering, Inc., 2010

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including the City of Montague.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (50% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and

location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Design /Planning Oversight (65% complete)

Provide engineering services and oversight as the project moves to implementation including design adjustment, as-build design during implementation and survey work.

Deliverables:

- Engineering refinement, construction as-built plans and surveys
- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (25% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare draft Environmental Impact Reports (EIR) and release document for public review. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Draft and Final EIR
- Copy of Notice of Completion

- No Legal Challenges letter

Task 3 - Permit Development (40% complete)

Continuing or amended permitting, as needed, as implementation advances including design adjustment or footprint modification. Attaining and amending (if necessary) the following permits currently applied for by MWCD: ACOE 404, Water Quality Cert 404. Low Threat Discharge Permit is attained.

Deliverables:

- Copies of all required permits: ACOE 404, Water Quality Cert 404, Low Threat Discharge Permit

Category (d): Construction/Implementation

Task 1 - Construction Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring. Includes significant site changes, standard public requirements including erosion control, SWPP and portable bathrooms.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation (0% complete)

Implementation of project including improved access and maintenance, excavation, grading and shaping the canal, installing the liner where specified, materials delivery, and applying shotcrete as the canal liner. Implementation includes placing selected canal backing material where needed, geomembrane material and staking installation, putting in shotcrete and associated materials standard to lining canals; placing precast concrete materials; and installing gages and instrumentation.

Deliverables:

- Photographic documentation
- Summary of site construction activities in monthly reports
- Engineers Certification

Task 4 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Notice of Completion

PROJECT: Trinity River Water Reliability and Drought Resiliency Project

IMPLEMENTING AGENCY: Northwest CA Resource Conservation & Development Council

Project Description:

The Northwest CA Resource Conservation & Development Council (Council)Trinity River Water Reliability and Drought Resiliency Project proposes to outreach to landowners in 3 priority watersheds that have riparian rights or appropriative rights with the point of diversion in a creek or ditch. The Council will assist landowners in economically disadvantaged communities to improve the efficiency of their water use and convert their diversion systems to utilize slow flow, lower impact pumps that collect water during the wet season for use in the dry season.

This type of water storage requires a Small Domestic Use Appropriation Registration (SDU) for each site. With rare exception, a CDFW Lake & Streambed Alteration Agreement (LSA) is required as part of the SDU process. The LSA includes provisions that prohibit diverting water during the dry season, which helps minimize impacts on instream habitat and wildlife during the most critical periods. Agreements with landowners will be required to provide the Council access to implement and monitor the project.

Once the slow flow infrastructure solutions proposed here are implemented in East Weaver Creek, they are estimated to result in a reduction to the diversions of ~2,000,000 gallons/day (2.9 cfs). One project component is to identify participants in Browns and East Fork Hayfork Creeks.

Goals and objectives:

Goal 1: Reduce water demand & increase usage efficiency in target watersheds & identify project participants

- Provide landowners with education on water conservation techniques and practices to minimize water consumption
- Outreach to landowners with existing water rights to garner interest in participating in a diversion upgrade to preserve instream flows during the dry season
- Identify suitable project participants and enter in to agreements to allow access, design and permitting, implementation, and monitoring needed to execute the implementation aspects of the project
- Assess landowners' household water fixtures for water efficiency & identify upgrades needed to obtain an optimal level of conservation

Goal 2: Preserve instream flows during critical dry periods & allow landowners to meet potable water needs

- Assess the level of compliance with filing requirements for water rights holders. Assist those not in compliance to comply. Assist everyone in obtaining a Small Domestic Use Appropriation Registration
- Evaluate existing diversions & design an upgrade to a slow flow pump & adequate storage that can collect water during the wet season for use in the dry season (to eliminate dry season diversions)
- Complete permitting and implement designs.
- Monitor the performance of upgraded systems, compliance with regulatory requirements, and flow conditions in target creeks

Goal 3: Provide better instream conditions for local coho salmon and other instream wildlife

- Encourage conservation and installation of proposed water efficiencies
- Ensure that pumps do not kill fish (e.g., have screens to avoid fish getting sucked into pumps)
- Ensure diversions facilitate migration by assessing them for barriers & correcting simple problems. For more complex barriers, work with landowners outside of this project to pursue larger solutions

Standards to be used in project implementation:
Earthwork construction (trenching, leveling, pads, etc.) will follow the 5 Counties Roads Maintenance Manual BMP's as applicable; Fish screening will comply with NMFS Fish Passage Screening Criteria (NMFS, Northwest Region 2011); Water withdrawal limitations will be done using Small Domestic Use Appropriation Registration and Lake & Streambed Alteration Agreements that include provisions prohibiting diverting water during the dry season. Building, storage systems and electrical construction will meet Uniform Building Code and Trinity County Building Code as required.

Summary of work completed to date:
Council staff has discussed permitting requirements with County Building staff LSA provisions with CDFW staff. Six East Weaver ditch water right holders have already verbally committed to the installation of new screened intakes, piping and storage tanks for the Hansen and McKnight ditch systems. The 7th owner has already installed the tanks, pumps and irrigation systems needed to intertie into a pipe delivery system. The USDA-NRCS is currently designing the intake for the McKnight Ditch. Landowners on the Hansen Ditch are working on design considerations for the intake as well.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors including Watershed Center & the Trinity County Resource Conservation District.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (15% complete)
Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (25% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Easements, Access Agreements, or Encroachment Permits (0% complete)

Acquire up to 5 easements, access agreements, or encroachment permits across private/public properties for water line/tank installation. Prepare surveys, legal descriptions, appraisals, title reports, and sales contracts.

Deliverables:

- Documentation supporting property value or appraisal
- All relevant documentation regarding property ownership transfer or acquisition of easement including final recorded deed, title report, etc.

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Outreach (0% complete)

Outreach will be carried out to identify interested landowners that will participate in the program and to conduct water conservation education within the major communities with specific education for participating landowners. 2-3 workshops will be conducted at popular community events.

Deliverables:

- Outreach materials (75 flyers, brochures)
- Messaging media
- Workshop materials

Task 2 - Final Design /Planning (10% complete)

Consultant to prepare final system design tasks including final building cost estimates and 100% Design plans. Preparation of bid package and award criteria.

Deliverables:

- Trenching details and field staking
- DigAlert
- 100% Design Documents
- Bid documents
- Bid notification and advertising

Task 3 - Environmental Documentation: CEQA (25% complete)

Council staff will coordinated submittal of a Small Domestic Use Appropriation Registration (SDU) for each site. Where needed a CDFW Lake & Streambed Alteration Agreement will be procured. Complete CEQA Initial Study and Categorical Exemption/Negative Declaration. Prepare NEPA EA or Exemption and release document for public review. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of SDU Registration
- Copy of CDFW Lake & Streambed Alteration Agreement
- Copy of Notice of Completion or Categorical Exemption/Negative Declaration
- No Legal Challenges letter

Task 4 - Permitting (0% complete)

4 (a) Permit Development: Trinity County Building Department. Building permits for electrical

4 (b) Permit Development: US Forest Service. Weaverville Community Services District submit revised permit application to NCRWQCB

Deliverables:

- All required permits

Category (d): Construction/Implementation

Task 1 - Construction Engineering Inspection and Contract Administration (0% complete)

Award construction contract, administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring.

Deliverables:

- Summary of site preparation activities in monthly reports

- Pre-project site photos

Task 3 - Project Construction/Implementation (0% complete)

3 (a) Purchase Hansen & McKnight Ditch Pipe and Screens. Purchase pipe and valve components for ditch water systems.

3 (b) Install Hansen & McKnight Piping. Installation of piping and valves and fish screens and other water conveyance system and fish exclusion screens.

3 (c) Trickle Fill Water System Parts Purchase. Filters, tanks, pumps, pipe, valve components for water systems

3 (d) Fire Department Connection Parts Purchase. Pipes, valves, pad material components for FDC systems

3 (e) Rooftop Rainwater System Parts Purchase for 30 Sites. Gutters, tanks, filters, pumps, valve components for Rooftop Rain Water systems

3 (f) Site Preparation and installation. Pipe and Tank installation for 21 Sites including clearing, trenching, backfill and compaction of buried water lines for 21 Trickle Fill water systems and FDC systems. Tanks and Pipelines installed

3 (g) Install Trickle Fill Water & FDC Systems. Labor to install 21 trickle fill water systems and FDC systems .

3 (h) Installation of Rooftop Rainwater Systems. Installation of piping between existing facility and new treatment facility and within new facility. 30 Sites Systems installed and operational

3 (i) Installation of Reclaimed Grey Water. Alter existing household plumbing for Grey water, install drain fields for 30 sites. Systems installed and operational.

Deliverables:

- Summary of implementation activities in monthly reports
- Photographic documentation

Task 4 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring.

Deliverables:

- Project completion site photos

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Monitoring reports; Final Project Monitoring Report
- Photographic documentation

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives.

Deliverables:

- Completed construction administration tasks documented in monthly progress reports

PROJECT: Mattole Flow Program: Mainstem & Tributary Storage and Forbearance

IMPLEMENTING AGENCY: Sanctuary Forest Inc.

Project Description:

The Mattole Flow Program: Mainstem & Tributary Storage and Forbearance project improves summertime streamflows in the Mattole River headwaters by seasonally limiting diversions through storage and forbearance, thereby increasing water quantity, improving water quality, enhancing rearing requirements, and facilitating fish passage. Water will be conserved through infrastructure improvements and leak-proofing, together with new tank storage. It will result in cessation of all diversions during summer low flows. The project also provides water supply reliability for residential use in a disadvantaged rural community that is completely dependent on surface water diversions.

Expected outcomes include 1) installation of 200,000 gallons of storage and associated water conservation and system improvements resulting in water security for 3 residential landowners and 4 families 2) improved streamflow and salmonid habitat in 5.5 miles of the Mattole headwaters mainstem and tributaries 3) improved protection of juvenile salmonids through installation of pump intake screens on four pumps and 4) increased community and regional participation in water conservation resulting from education associated with the project.

Goals and objectives:

Goal 1: Address human water needs, water security, and public health in the Mattole Headwaters

- Install water storage sufficient for 4 families
- Operate summertime forbearance program for existing participants consisting of 16 households, 1 business/residential complex, 1 school and 2 small family farms.
- Obtain new water rights to allow for diversion to storage in lieu of direct diversion under riparian water rights
- Operate CDFW 1600 group program in collaboration with CDFW and landowners

Goal 2: Improve habitat for native salmonids

- Improve summer flows by turning off 4 pumps during the low flow months
- Protect juvenile salmonids from injury by installing CDFW compliant fish screens on 4 pumps
- Improve water quality through improved flows
- Improve fish passage through improved connectivity between pools resulting from improved flows

Goal 3: Increase community and regional participation in water conservation through education

- Install storage and forbearance along with signage in locations that are visible to the community and visitors to increase culture and practice of water conservation.
- Maintain roadside sign with flow alerts and conservation actions during low flow season.
- Collaborate with Mattole Restoration Council and Mattole Salmon Group to expand watershed wide water conservation along with educational materials and technical assistance
- Collaborate with regional groups to expand regional water conservation including sharing of all materials developed for the forbearance program and the Mattole watershed.

Standards to be used in project implementation:

Construction standards include the requirements outlined in the mitigated negative declaration for environmental impacts as well as standards needed to ensure water quality and water security that we have developed at Sanctuary Forest over the last 8 years. Quality of stored water is maintained through installation of clarity filters between tank and source and by using tanks that are light proof. All systems include leak safety proofing to minimize loss of water in the event of a leak as well as freeze protection.

Summary of work completed to date:
Sanctuary Forest has been conducting extensive research to assess potential causes and solutions to the Mattole low flow problem since the summer of 2003. Sanctuary Forest is trustee of 11 conservation easements encompassing 6,075 acres, including the first conservation easement in California to include a forbearance clause, funded by CDFW contract #P0210542. Sanctuary Forest has executed 20 forbearance agreements and associated water storage systems and is fully equipped to implement storage and forbearance projects. Storage and Forbearance for residential and institutional landowners in the Mattole headwaters mainstem and tributaries has been implemented for the years 2005-2015. As of January 1, 2015 1.2 million gallons of storage have been installed along with legally binding forbearance agreements for 20 landowners and measurable improvements in streamflows. Following is a list of technical documents developed for the project:

- Sanctuary Forest's "Hydrologic Assessments of Low Flows in the Mattole River Basin 2004-2014"
- Trout Unlimited's instream flow studies in 2011-2012 with CEMAR and McBain and Trush; "Mattole River Headwaters Streamflow Improvement Plan"
- Mattole Flow Program: Water Storage and Forbearance Conceptual Plan

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)
Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with Labor Compliance Program company. Required prior to construction.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Plans (5% complete)

Complete forbearance agreements, water management plans and site specific drawings for 3 landowners (4 families/water systems). Includes engineer and water law attorney consultants. This task must be completed prior to construction.

Deliverables:

- Copies of 3 forbearance agreements with water management plans
- 4 as built system drawings
- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

Task 2 - Environmental Documentation: CEQA (50% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). CEQA to be included in CDFW FRGP process with two MND documents to cover the project and required prior to construction. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- Copy of MND documents

- No Legal Challenges letter

Task 3 - Permit Development (20% complete)

Acquire the following permits:

3 (a) Permit Development: DFW 1602. Group 1602 in development with CDFW. Complete process and add new landowners including notification forms and process. Not required prior to construction.

3 (b) Permit Development: water rights modifications and small domestic registrations. Prepare small domestic use applications for each landowner along with CDFW terms and conditions developed with CDFW for each tributary or mainstem. Not required prior to construction.

3 (c) Permit Development: archeology and botany clearance. Coordinate archelogy and botany surveys with CDFW and the contractor. Required prior to construction.

Deliverables:

- Copies of the 1602 notifications for each landowner in the project
- Copies of the submitted small domestic use applications and CDFW terms and conditions
- Copies of correspondence determining clearance for construction to begin

Task 4 - Manage Group 1602 Agreement (0% complete)

Finalize group 1602 program for 20 forbearance participants, track landowner compliance and prepare reports to be submitted to CDFW. Not required prior to construction.

Deliverables:

- Status report on group 1602 program

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (5% complete)

Meet with local qualified contractors to determine availability and cost effectiveness. Select the contractor and prepare not to exceed contracts with billing on a time and materials basis.

Deliverables:

- Copies of construction contracts

Task 2 - Mobilization and Site Preparation (0% complete)

Prepare Site and mobilize project:1. Initiate project site preparation; 2. Order project equipment and supplies; 3. Assure project permits are in place; 4. Conduct pre-project site photo-monitoring.

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation: install 4 water storage systems totaling 200,000 gallons (0% complete)

The tank or tanks are installed along with other plumbing needed to facilitate use of the stored water. Installation tasks include site preparation; tank assembly; trenching and piping from tank to house; pressure pump and small pressure tank installation if needed; plumbing and electrical hook-ups; meter installation; CDFW/NOAA compliant fish screen installation; and filtration system installation. The filtration system prevents deterioration of stored water.

Deliverables:

- Photographic documentation
- Summary of construction activities in monthly reports

Task 4 - Project Construction/Implementation: Install 4 pump screens (0% complete)

Pump screens are fabricated to comply with CDFW specifications and installed on all pump intakes.

Deliverables:

- Photographic documentation
- Summary of construction activities in monthly reports

Task 5 - Project: Operate seasonal forbearance program for 3 years (2015 , 2016 & 2017) (0% complete)

Conduct streamflow monitoring as needed to determine beginning and ending of forbearance period. Perform landowner notices and compliance monitoring for all 20 participants at the end of each forbearance season.

Deliverables:

- Summary of seasonal forbearance program operation in monthly reports
- Forbearance dates and sample landowner notice letter

Task 6 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 7 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification. The performance of the project will be monitored by landowner compliance monitoring each year at the end of the forbearance season and by measuring the flow downstream of the project. Analysis will include comparison of pre and post project flows.

Deliverables:

- Copy of landowner monitoring summary
- Streamflow Monitoring Report

Task 8 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: Shasta River Drought Response and Irrigation Efficiency Project

IMPLEMENTING AGENCY: Shasta Valley Resource Conservation District

Project Description:

Funding for this project is requested in order to continue existing efforts by the Shasta Valley Resource Conservation District (SVRCD) to implement water quality and irrigation efficiency improvement projects in the Shasta River. The project includes the installation of on-farm flow measuring sites and equipment and designs for replacement of earthen ditches with pipeline. Another component involves starting a drought response service providing assistance with leak detection, irrigation assessments, and water management training. An outreach component aligns this project with the Shasta Watershed Stewardship framework to track and share stewardship actions and benefits.

The Shasta River Drought Response and Irrigation Efficiency Project obtains final designs for irrigation efficiency pipelines on Novy and Huseman properties, and will address outdated inaccurate flow measurement equipment that contributes to delivery inefficiencies for the Shasta River Water Association (SRWA) and Montague Water Conservation District (MWCD). The SRWA locations are within a strip of irrigated land along the Shasta River from Grenada to Yreka, California; MWCD sites are in the upper Shasta area. Physical improvements will consist of completion of 12 improved irrigation measuring sites with up to date electronic equipment**.** This project also supports developing a new conservation incentive based billing system for SRWA made possible with the new equipment, and training and consensus building for modification of water delivery methods. A long term irrigation upgrade study (Forsgren Study, 2003) includes discussion of the need for measuring upgrades and billing changes towards the goal of instream flow improvements. These projects in combination create a conservation incentive based billing system and irrigation deliveries of a more targeted flow based on need, rather than a general rotation schedule.

Goals and objectives:

Goal 1: Water Quality

- Allow more water instream for salmon during all life stages
- Reduce the Mean Weekly Maximum Temperatures (MWMT) for over-summering coho in Reach 3 with increased water instream
- Improving the minimum daily dissolved oxygen values in Reach 3

Goal 2: Economic Viability

- Improve irrigation efficiency infrastructure in a disadvantaged community that is under increased scrutiny from regulators to meet conservation targets
- Provide jobs and contracts to qualified local contractors
- Resilience for landowners against lawsuits or costly legal issues

Goal 3: Water Efficiency

- Improve drought resilience by allowing farmers to irrigate using only what they need
- Designs for reduction of ditch losses and with improved infrastructure
- Provide water conservation services to landowners in order to promote voluntary water conservation through leak detection and ditch loss assessments

Standards to be used in project implementation:

The Natural Resources Conservation Service (NRCS) Standards will be used for construction of measuring boxes, including 587 Structure for Water Control and 449 Irrigation Water Management. OSHA standards will be followed for safety. A Surface Water Ambient Monitoring Program (SWAMP) compliant protocol will be followed for flow, temperature, and dissolved oxygen monitoring; data will be uploaded to CEDEN as applicable. Changes to billing structure for the irrigation

district will be in compliance with applicable laws. Photo-point monitoring will follow accepted protocol such as that required by the State Water Board.

Summary of work completed to date:
Preparatory work has been completed in the past decade towards this project by several partners. Several of the component projects within this request for funding have plans and designs completed.

- Shasta River Water Association Irrigation Flow Control and Measurement Devices: this component has engineering design completed in 2013. Implementation has been completed on 3 of the 14 sites.
- Montague Water Conservation District Measuring Equipment: this component needs final design and review.
- Huseman Ditch to Pipeline and Tailwater Return System: this project has 60% design completed by NRCS.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including Shasta Water Association and Montague Water Conservation District.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Irrigation Efficiency Projects Workplan (50% complete)

Develop Final Workplan for all efficiency projects, based on existing plans and studies, to maximize benefit and address current conditions.

Deliverables:

- Final Irrigation Efficiency Workplans

Task 2 - Land Surveys (0% complete)

Conduct land surveys needed for project design (pipeline) on Novy andHuseman ranches. Cost estimate based on previous experience.

Deliverables:

- Complete Final Land Surveys

Task 3 - Final Design /Plans (0% complete)

Develop final plans and specifications for efficiency projects (pipeline) in Novy and Huseman ranches. (Design only). Cost estimate based on previous experience.

Deliverables:

- Final Project Designs and Specifications

Task 4 - Environmental Documentation: CEQA (0% complete)

Prepare and file Notice of Exemption (Categorical Exemption 15302 Replacement or Reconstruction of Existing Facilities). Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Exemption
- No Legal Challenges letter

Task 5 - Permitting (0% complete)

No permits are expected to be required because all work is upgrading existing facilities and no work will be conducted instream or in a wetland.

Deliverables:

- none

Category (d): Construction/Implementation

Task 1 - Implementation Contracting: Irrigation Efficiency Water Measuring Projects (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract

Task 2 - Project Implementation: Irrigation Efficiency Water Measuring Projects (0% complete)

Implement water measuring equipment improvement projects by installing measuring equipment at 12 sites.

Deliverables:

- Photographic documentation
- Summary of site implementation activities in monthly reports

Task 3 - Project Implementation: Irrigation Efficiency Service (0% complete)

Develop Irrigation Efficiency Service for landowners. Subcontract to conduct outreach to Shasta River Water Assoc and other irrigators. Conduct irrigation efficiency training and services (assessments, leak detection, management training).

Deliverables:

- Photographic documentation
- Workplan for irrigation efficiency services
- Summary of site implementation activities in monthly reports

Task 4 - Project Implementation: Outreach and Tracking (0% complete)

Conduct outreach to partners and others through Shasta Watershed Stewardship Report and framework. Track completed projects through inclusion in stewardship database.

Deliverables:

- Summary of partnership coordination and outreach challenges and successes
- Summary of outreach activities in monthly reports

Task 5 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 6 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification: Photo monitoring, water quality monitoring (temperature, dissolved oxygen), flow measurements.

Deliverables:

- Photographic documentation
- Final Monitoring Report

Task 7 - Construction Administration (0% complete)

Complete tasks necessary to administer implementation contracts. Keep daily records of construction activities, inspection, and progress. Conduct project implementation photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: Shelter Cove Water Recycling Project

IMPLEMENTING AGENCY: Resort Improvement District No.1

Project Description:

In response to prolonged drought and state mandates, the Resort Improvement District No.1 (RID) endeavors to reduce water use and limit diversions from Telegraph Creek, a small creek with limited capacity that is highly vulnerable to drought and seasonal flow restrictions.. Therefore, RID proposes to expand its existing water recycling program, which currently serves only part of its 9-hole golf course, to further reduce its ocean discharge and then provide residents with recycled water for landscape and small-scale irrigation.

This grant will provide the funding to design and engineer a tertiary recycled water recycling program. The RID proposes to expand its existing water recycling program, a 38,000 gallons per day system which only provides water for its 9-hole golf course, and such expansion will further reduce its ocean discharge, provide water for wildfire suppression to multiple agencies, and then provide residents with recycled water for landscape and small-scale irrigation. RID will expand the capacity of its tertiary recycled water treatment system, install a recycled water storage capability (none stored now), prepare a recycled water monitoring plan, and educate the public on the use of recycled water.

Goals and objectives:

Goal 1: Complete a Preliminary Engineering Report

- Evaluate existing tertiary treatment system to determine upgrades necessary to treat water for public use
- Evaluate conveyance and storage alternatives for treated wastewater
- Estimate the cost of construction of the refined wastewater recyling and re-use project system
- Complete Preliminary Engineering Report (PER)

Goal 2: Provide for public safety.

- The project will provide an additional reliable, sustainable water source that will address long-term drought preparedness.
- The project will provide an additional fire suppression water supply that is separate from the community's potable water supply and fire hydrants.
- The project will provide non-potable water that can be utilized by the community for maintaining fire-resistant landscaping in summer months.
- Reduce the instances of water theft from fire hydrants. Hydrant tampering has lead to hydrant damage, the unexpected depletion of our drinking water supply & reduced ability to fight fires.

Goal 3: Increase the economic vitality of Shelter Cove.

- Expand local job opportunities for the nursery and landscaping sectors by making non-potable water available to local gardeners/landscapers. All recycled water to remain within their property boundaries.
- Attract more visitors to Shelter Cove by improving recreational opportunities using recycled water to irrigate and improve the golf course women's tees and other recreation areas

Goal 4: Ecosystem Conservation and enhancement.

- Decrease the amount of water taken out of Telegraph Creek and reduce the amount of treated wastewater entering an Area of Special Biological Significance (ASBS) located adjacent the RID's wastewater treatment plant by making recycled wastewater available to our community.

Standards to be used in project implementation:

This grant funding is for the engineering and design phase of the project, and all standards for the Preliminary Engineering Report will be conducted in accordance with accepted industry standards including Title 8 of the California Code of

Regulations and OSHA Regulations with adequate management supervision to ensure these standards are adhered to for the duration of the project. The permit application will be submitted in accordance with Humboldt County and California Coastal Commission requirements. The California Environmental Quality Act Negative Declaration will be completed in accordance with the requirements of the Act.

Summary of work completed to date:
The budget and costs were developed by LACO Associates.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt

County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Preliminary Engineering Report (PER) (0% complete)

Under the direction of the RID Project Manager, LACO Associates will prepare a draft and final PER. The PER will include but is not limited to assessing the existing wastewater system, estimating the cost of incorporating a sand filtration system, calculating pipe size, tank types, and O&M considerations.

Deliverables:

- Draft and Final PER

Task 2 - Environmental Documentation: CEQA, Initial Study/Mitigated Negative Declaration (0% complete)

RID and a consultant will prepare an Initial Study and Mitigated Negative Declaration based on the Project Description contained in the PER. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Draft and Final IS/MND
- No Legal Challenges letter

Task 3 - Permit Development - Coastal Development Permit (0% complete)

In cooperation with the County, RID and LACO Associates will prepare a Coastal Development and Coastal Grading Permit based from the Project Description contained in the PER**.**

Deliverables:

- Coastal Permits

Task 4 - Permit Development - Master Recycling Permit (0% complete)

RID administered Master Recycling Permit (Section 13523.1). Consult with the NCRWQCB and the CDPH and initiate an amendment to the Discharge Permit to allow for wastewater recycling for home irrigation.

Deliverables:

- Amended Discharge Permit

Category (d): Construction/Implementation

None

PROJECT: Northern Sonoma County Water Conservation Program

IMPLEMENTING AGENCY: Sonoma County Water Agency

Project Description:

The Northern Sonoma County Water Conservation Program will implement BMPs to reduce water demands to address the ongoing, limited water supply in Lake Mendocino and ensure Lake Sonoma supplies are used prudently. The program will consist of rebates and direct customer education on actions to save water. Rebate programs will be established and expanded in the Project Area to provide incentives directly to customers for the purchase and installation of high-efficiency clothes washers, toilets and urinals and for the conversion of turf to climate appropriate low water use plants. In addition, the project will launch a Residential Water Audit Program (Audit Program) to provide site specific guidance to homeowners on ways to save water including checking for leaks, assessing existing water using fixtures and appliances, and irrigation scheduling. Staff will be assigned and trained to implement the new Audit Program. An education component will fund classes and outreach events in the Project Area targeted at both residents and landscape professionals.

The project focuses on drought-affected areas that historically have not implemented water conservation programs by providing incentives directly to customers. The Water Agency will assist and mentor Project Proponents with the implementation of the project.The intended purpose is to reduce demands, increase local resiliency, and expand water conservation programs for these water utilities that are severely drought stricken. High levels of participation are expected based on past programs.

Goals and objectives:

Goal 1: Invest in water conservation strategies in drought-prone communities to adapt to climate change.

- Implement Best Management Practices (BMP) in California water management in drought-prone communities.
- Modify consumer behavior to reflect water use efficiency and conservation as the norm.
- Change the ideal landscape aesthetic from an East Coast lawn to California appropriate plants.
- Develop sustainable, water conservation programs in disadvantaged communities and regions that have historically not offered incentives to customers for reducing water demand.

Goal 2: Increase water conservation among rural residential and commercial customers.

- Increase awareness of residential customers about the need to increase water conservation for the long term.
- Decrease the amount of potable water used by residential and commercial customers by a minimum of 20%.
- Rebate the installation of 0.8 gpf high-efficiency toilets, urinals, clothes washers, and turf removal.
- Provide residential customers access to Home Water Assessments including free showerheads, and faucet aerators and irrigation schedules wherever feasible and beneficial in residential homes.

Goal 3: Promote water efficient landscaping practices.

- Reduce the use of potable water for landscape irrigation.
- Provide incentives to residential customers to replace high water use landscaping (turf) with low water use plants.
- Convert 649,000 square feet of turf to low water use landscaping.

Standards to be used in project implementation:

This project does not involve construction or laboratory work. Health, safety standards and protocols will be implemented in accordance with the Water Agency's and the project proponents' employee policies.

Summary of work completed to date:

This project builds on the Sonoma-Mendocino Immediate Drought Relief Project funded through NCRP 2014 IRWM Drought Project Proposition 84 funding. It provides additional funding for some programs, adds new programs, and expands the service area to include new entities. There are also separate efforts being made in the agricultural sector to minimize

impacts by farmers and vineyard operators along the Russian River and its tributaries. The following technical document has been developed for the project:

- BMP Cost and Savings Study Update, California Urban Water Conservation Council (Western Policy Research, 2014)

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies throughout Sonoma County including County of Sonoma, multiple cities, Tribes and small municipal water utilities.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Program Coordination and Planning (0% complete)

Program coordination efforts and meetings/conference calls with partners.

Deliverables:

Documentation in monthly and final reports on program coordination efforts, and meetings/conference calls with partners.

Task 2 - Program Marketing and Outreach Materials (0% complete)

Development of Program Marketing and Outreach Materials.

Deliverables:

- Program Marketing and Outreach Materials

Task 3 - Outreach and Training (0% complete)

Coordinate and schedule trainings for partner agencies on how to implement the Turf Replacement Rebate Program. Trainings will provide guidance on the following: eligibility verification, pre- and post-site inspections, rebate process, and any other program components.

Deliverables:

- Partner Outreach and Training Materials

Category (d): Construction/Implementation

Task 1 - Turf Replacement Rebate Program (0% complete)

Provide incentives to residential and commercial customers to replace more than 465,250 square feet of high water use landscaping (turf) with low water use plants. Complete implementation activities such as process and forward applications for participation to appropriate Partners, perform pre- and post- site inspections, and process rebates.

Deliverables:

- Program tracking spreadsheets and reporting on progress in monthly and final reports

Task 2 - Education and Outreach Program (0% complete)

Implement Education and Outreach Program to promote water use efficiency through three specific programs detailed below.

The **Community Resilience Challenge** is a collaboration of non-profits, municipalities, businesses and individuals working together to bring awareness to the need for local solutions to drought, food insecurity and climate change. During May 2015, Challenge participants registered an action online to save water, grow food, conserve energy and build community. It is anticipated that annually 7,000 actions will be taken and at least 70,000 sq ft of grass will be converted. The number of actions registered, and the square footage of turf removed will be reported to DWR.

Garden Sense is an in-garden consultation, free to homeowners which provides information about how to convert lawn to low water use plants, replace sprinkles with drip irrigation, and manage soil to conserve water. It is estimated to provide 30 consultations per month. The number of appointments and the square footage removed by customers will be reported.

Qualified Water Efficient Landscaper (QWEL) a 21-hour training program which covers water efficient plants, soils, and water management for those in the landscape industry. The training is available in English and Spanish and includes specialty modules such as Graywater, Advanced Water Management and Rainwater Harvesting. Grant funds will allow the Advanced Water Management module to be translated to Spanish and is anticipated to provide eight trainings with 20 graduates per class annually. The number of trainings and attendees as well as the square feet of turf removed will be reported to DWR.

Deliverables:

- Program tracking spreadsheets and reporting on progress in monthly and final reports

Task 3 - High-Efficiency Toilet and Urinal Program (0% complete)

Approve participation for program applicants, and monitor and track installations. Provide rebates as an incentive for the installation of at least 1,600 0.8 gallon per flush high-efficiency residential toilets, 1.28 gallon per flush (or less) commercial toilets and/or 0.125 gallon per flush urinals in order to decrease the amount of potable water used by residential and commercial customers.

Deliverables:

- Program tracking spreadsheets and reporting on progress in monthly and final reports

Task 4 - High-Efficiency Washer Program (0% complete)

Approve participation for program applicants and monitor and track installations. Provide rebates as an incentive for the installation of at least 1,975 high-efficiency clothes washers in order to decrease the amount of potable water used by residential and commercial customers.

Deliverables:

- Program tracking spreadsheets and reporting on progress in monthly and final reports

Task 4 - Water Assessment Program (0% complete)

Implement Water Assessment Program. Water Agency staff will perform a site evaluation of indoor and outdoor water-using fixtures for residential and commercial customers. A customized report will be provided with a list of water savings recommendations and details on the available incentives. The Water Agency will coordinate with each Project Proponent and provide program management including but not limited to eligibility verification, tracking participation, developing marketing/outreach materials, and scheduling program related appointments. The Water Agency will provide the partner City with copies of the Participant reports.

Deliverables:

- Program tracking spreadsheets and reporting on progress in monthly and final reports

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification: number of households participating in program (audits and rebates); number of acre feet of water conserved for water quality and avoided water supply projects; number of kWh saved in energy transmission costs; number of days of increased recreation; and number of tons reduced carbon emissions.

Deliverables:

- Project Monitoring Report

PROJECT: Russian River Coho Drought Resiliency Planning and Implementation Program

IMPLEMENTING AGENCY: Sonoma Resource Conservation District

Project Description:

Focusing on the five Russian River tributaries identified by resource agencies as having the highest potential for streamflow enhancement and coho recovery, this project seeks to work with the largest water users in each subwatershed to significantly and measurably reduce summer stream withdrawals and reduce use of 15 acre feet of water. The goal of this project is to develop and implement comprehensive water conservation plans for landowners along key reaches of the five tributaries.

Plans will include a suite of components: rainwater catchment to both replace stream withdrawals and enhance agricultural water supply reliability, off-channel storage development, use of soil and plant monitoring devices to decrease irrigation, irrigation efficiency upgrades, wind machines for frost protection, and stormwater management/groundwater recharge. Participating properties comprise a variety of land uses including vineyards, rangelands, orchards, crop farms, and private environmental centers/camps.

The project will also implement three rainwater catchment projects whose designs are nearly complete, which will serve as highly-visible demonstration projects. Additional catchment projects identified during water conservation plan development will be submitted for implementation funding as they are designed and funding becomes available.

Goals and objectives:

Goal 1: Streamflow augmentation throughout critical reaches in the Russian River's 5 priority subwatersheds

- Assist at least 10-15 riparian landowners with the development and implementation of comprehensive water conservation plans, constituting at least 28.6 acre-feet/year in water savings
- Construct at least 5 rainwater catchment/water storage systems designed to capture at least 170,000 gallons and reduce or eliminate May-October streamflow diversions

Goal 2: Drought resiliency and water supply reliability for agricultural operations

- Provide comprehensive irrigation efficiency evaluations and system upgrade assistance for at least 10-15 agricultural producers to conserve an estimated 28.6 acre feet/year or 9.3 million gallons.
- Develop at least 6 designs for rainwater catchment and water storage systems
- Implement 5 rainwater catchment/water storage projects totaling at least 170,000 gallons to eliminate summer stream or near-channel well withdrawals from critical coho-bearing stream reaches

Goal 3: Streamflow monitoring to inform adaptive management and water conservation program effectiveness

- Install an additional flow gauge in Mark West Creek and monitor all 3 Mark West gauges for 4 years during the summer months
- Work through existing Coho Partnership monitoring efforts to collect and analyze streamflow data from all gauges throughout the five watersheds.

Goal 4: Public outreach and education of IRWM priorities and project implementation

- Conduct at least 3 public tours of the constructed water storage demonstration projects
- Develop project signage and education/curriculum materials for the West Side School Rainwater Catchment Demonstration Project
- Develop and distribute outreach materials quantifying the economic benefits of water conservation and storage.
- Hold at least two public meetings and/or community events to present IRWM-funded and related activities, including discussions of drought adaptation, salmonid restoration efforts, and community water supply resiliency.

Standards to be used in project implementation:
The following standards will be used in implementing rainwater catchment projects and irrigation upgrades: California Building Code, California Plumbing Code, CalOSHA, American Rainwater Catchment Systems Association (ARCSA) Plumbing Engineering and Design Standards, Job Hazard Analyses, Site Health and Safety Plans, and County of Sonoma Residential Construction Manual.

Summary of work completed to date:
Outreach to landowners in these priority subwatersheds is underway in collaboration with the County of Sonoma, through funding from a 2014-15 cooperative agreement and the Sonoma County Water Agency's Russian River Watershed Program. Outreach efforts include public meetings, workshops, and targeted mailings. Many of the subwatershed's landowners are already participating in RCD or partner projects and monitoring efforts. Three rainwater catchment/water storage designs have been completed including:

- Bones Road Farm (Campbell-Malay) Rainwater Catchment System
- Westside School Rainwater Catchment Demonstration Project
- Rancho Mark West Water Rainwater Catchment Project

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)
In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors.

Deliverables:
- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)
Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:
- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)
Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Plans (20% complete)

Complete design details for 4-10 water conservation plans; develop at least 3 rainwater catchment/water storage designs and 100% (Final) design, plans, and specifications.

Deliverables:

- 2-5 conservation plan summaries
- 100% engineered design Documents

Task 2 - Irrigation Efficiency Evaluations (0% complete)

Provide Comprehensive irrigation evaluation and system upgrade and recommendations on 5-10 agricultural producers.

Deliverables:

- Irrigation Efficiency Results

Task 3 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare Notices of Exemption for each construction site. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Completion/ Notices of Exemption
- No Legal Challenges letter

Task 4 - Permit Development: County Building permits (0% complete)

County Building permits

Deliverables:

- County Building permits

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Project Construction/Implementation: Rainwater Catchment Systems (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place. Construct 2 rainwater catchment/water storage projects. Conduct pre and post project site photo-monitoring.

Deliverables:

- Summary of site construction activities in monthly reports
- Photographic documentation

Task 3 - Project Construction/Implementation: Irrigation Efficiency Improvements (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place. Implement 6-8 water conservation plans with irrigation efficiency improvements. Develop detailed descriptions of plan implementation at each site, with estimates of water savings. Conduct pre-and post-implementation photo-monitoring.

Deliverables:

- Summary of site construction activities in monthly reports
- Photographic documentation
- Water savings documentation

Task 4 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 5 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation
- Streamflow monitoring results
- Pre- and post-implementation water use metering documentation
- Project Monitoring Report

Task 6 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports

PROJECT: South Fork Trinity River - Spring Run Chinook Salmon Restoration Project

IMPLEMENTING AGENCY: Watershed Research and Training Center

Project Description:

The primary purpose of the South Fork Trinity River (SFTR) - Spring Run Chinook Salmon Restoration Project is to significantly enhance salmonid habitats in the SFTR by implementing comprehensive, process-based restoration plans. The Watershed Research and Training Center will provide immediate and long-term benefits to native fish and wildlife by installing numerous constructed wood jams and willow revetment baffles, and by planting native trees in riparian habitats to address identified limiting factors. Other North Coast IRWM objectives addressed include providing economic stimulus to disadvantaged communities through increased job opportunities, implementing actions prescribed in the SFTR Action Plan, and promoting increased cooperation in planning and implementing integrated resource and water management.

In recent decades there has been a substantial decline in the numbers of fish in the SFTR and its tributaries. Spring Chinook populations within the SFTR have declined precipitously over the last 45 years, from 11,604 in 1964 to an average of 200 per year today. Geneticists warn that the population is near an "extinction vortex" that will lead to extirpation if the population does not rebound soon.

Goals and objectives:

Goal 1: Restore and Enhance South Fork Trinity River Spring Run Chinook Habitats within the Project Reach

- Improve Adult Holding and Migration Habitat Conditions
- Improve Juvenile Rearing Habitat Conditions
- Improve Adult Spawning Habitat Conditions
- Improve Ecosystem Function for In-Stream and Floodplain Habitats

Goal 2: Restore and Enhance South Fork Trinity River Geomorphic Processes within the Project Reach

- Increase In-channel Complexity and Floodplain Connectivity
- Increase Pool Frequency, Residual Depths, and Resiliency
- Increase Hydraulic and Hydrogeomorphic Function
- Increase Stream Bed Topographic Heterogeneity and Sustainability

Goal 3: Restore and Enhance South Fork Trinity River Water Quality within the Project Reach

- Improve Water Quality Conditions for Spring Run Chinook
- Increase the Spatial and Temporal Cold Water Retention
- Increase the Quality of In-Channel Thermal Refugia Areas
- Increase Groundwater Hyporheic Exchange Zones

Standards to be used in project implementation:

Project standards for Restoration are described in California Department of Fish and Wildlife's (CDFW) California Salmonid Stream Habitat Restoration Manual (CDFW 1998) and the newly published Large Wood National Manual by the US Bureau of Reclamation and US Army Corps of Engineers 2015. Yurok staff will also follow safety protocols outlined in the Yurok Tribe Watershed Restoration Program's Injury Prevention and Safety Plan.

Summary of work completed to date:

This project is intended to serve as the foundational first phase of on-the-ground restoration implementation actions in the South Fork Trinity River. Detailed watershed assessments and long-term trend monitoring over the last decade have addressed the need for action. Following is a list of technical documents developed for the project:

- Spring Chinook in the South Fork Trinity River: Recommended management actions and the status of their implementation - Trinity River Restoration Program, February 1st 2013 (TRRP et. al, 2013).
- Action Plan for the Restoration of the South Fork Trinity River Watershed and It's Fisheries , Pacific Watershed Associates (PWA 1994).

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, consultants/contractors and the Yurok Tribe.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Final Design /Plans (0% complete)

Design analysis, hydraulic modeling, large wood force calculations, construction drawings, and design report will be developed primarily by the Yurok Tribe.

Deliverables:

- Final Design Report
- Design Calculations
- Construction Drawings
- Large Wood Risk Assessment
- 100% Design Documents

Task 2 - Environmental Documentation: CEQA (0% complete)

Prepare and circulate a Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare draft Environmental Impact Reports (EIR) and release document for public review. File Notice of Completion with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges). Environmental Documentation (CEQA) will occur around the 30% design phase and will be performed by specialists within the Yurok Tribe or WCTC.

Deliverables:

- Copy of Notice of Preparation
- Environmental Documentation (CEQA)
- Copy of Notice of Completion
- No Legal Challenges letter

Task 3 - Permit Development(0% complete)

Development of specific permit applications as applicable based on Environmental Compliance Documents. This will include the following permit applications/documents: California Department of Fish and Wildlife - Lake and Streambed Alteration (LSA) Permit - Code 1600-1616; California Water Quality Control Board Administered Federal Clean Water Act - Section 401 - Water Quality Certification Permit; U.S. Army Corps of Engineers Administered Clean Water Act - Section 404 Permit" -[Working in the Waters of the United States Permit] and Section 10 Permit - [Working or erecting structures in or

affecting “navigable waters.”]; State of California - Timber Harvest Plan (THP) for tree harvest areas to support helicopter loading; State of California - Water Quality Control Board - Storm Water Pollution Prevention Plan Permit (SWPPP); Trinity County Floodplain Development Permit and FEMA no-net rise hydraulic certification permit.

Deliverables:

- Copies of all required permits: 1600, 401, 404, Section 10, SWPP, THP, Trinity County Floodplain Development Permit

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Sub-Contracting agreements with the Yurok Tribe, Columbia Helicopters, Timber Harvesting Company, and Timber Supply Company
- Notice to proceed

Task 2 - Project Construction/Implementation: Tree Supply and Harvesting (0% complete)

Mobilization for tree harvesting will be based on the Timber Harvesting Plan. Tree harvesting will continue for approximately 2 months with a yield of 10 trees harvested (with root wad) via excavator, loaded, and hauled per day to the "forward-staging" zone in preparation for helicopter loading. Effective removal of approximately 500 trees from upslope approved areas with a certified Timber Harvest Plan (THP). This work will be performed over a 50 day window (10 trees per day).

Deliverables:

- Summary of Implementation activities in monthly reports
- Photographic documentation

Task 3 - Project Construction - Technical Coordination/Oversight/Management (0% complete)

This task will begin a week prior to when the field crews are on the ground and continue through wood placement. The technical team will layout and prepare for each of the designed large wood sites to organize field crews for harvesting operation. It is anticipated that there will be approximately 30 separate sites consisting of up to 15 whole trees (500 total) will be laid out within the 15.5 mile reach on private lands. This is an ongoing task during construction using a multi-disciplinary team to execute on-site planning, coordination and management of field crews and helicopter logistics of wood placement.

Deliverables:

- Photographic documentation
- Summary of Implementation activities in monthly reports

Task 4 - Project Construction/Implementation: Field Crew Site Preparation (0% complete)

This task will occur once permits are received approximately two weeks prior to helicopter mobilization. Hand crews will harvest small diameter trees in the upland and stage near the river for placement as slash for habitat under helicopter placed trees. A crew will consist of a six member team - 10 hour days for approximately a week and a half. Where access is

practicable, an excavator may be used for a portion of the wood loading activities, however this will be unfeasible for most of the project. Complete approximately 30 sites of harvesting for wood slash to support habitat development at the specific project areas within the 15 mile restoration reach.

Deliverables:

- Photographic documentation
- Summary of Implementation activities in monthly reports

Task 5 - Mobilization/Demobilization and Staging (0% complete)

Columbia Helicopters will bring in a team for ground logistics and fuel trucks staged for flight re-fueling near "Forward-Loading" zone. The task includes effective mobilization of helicopter to the South Fork Mountain area and staging of supplies.

Deliverables:

- Photographic documentation
- Summary of Implementation activities in monthly reports

Task 6 - Heli-Loading of Wood (0% complete)

This task will occur during a one week period with the goal of placing approximately 500 whole trees at 30 distinct locations of approximately 15 trees per site complex. Trees will be placed at the range of 30-18" DBH with the average around 24" DBH. This task includes approximately four days of flight loading and aerial placement of wood at 30 separate project sites as detailed in the project design and by on-site technical representative.

Deliverables:

- Photographic documentation
- Summary of Implementation activities in monthly reports

Task 7 - Project Construction - Quality Control and Engineering Support (0% complete)

This task will occur while the helicopter is actively placing trees. This will provide on-site direction of exact locations of tree placement and troubleshooting any design changes or engineering considerations. This will consist of a multi-disciplinary team of an engineer, geomorphologist, and restoration biologist. A safe work zone by OSHA standard to insure laborer/operator safety is met through the project is the most important. This task includes technical support and insuring the wood is placed according to design specifications.

Deliverables:

- Photographic documentation
- Summary of Implementation activities in monthly reports

Task 8 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 9 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification including:

1) Biological Utilization for Adult holding and Juvenile Rearing: The objective is to document changes in the behavior of both life stages due to management actions in the project reach through a pre/post implementation monitoring plan. Project site will be visited during the summer the year before and after construction to document where Spring Chinook are holding and rearing in the project reach via direct observation for two years.

2) Geomorphic/Physical Assessment: Pre-Post topographic on-site surveys will be performed to monitor physical evolution of scour, deposition, substrate composition, and residual pools depths/area. Repeat thalwag surveys and aerial photography (using low-cost techniques) will be performed to document geomorphic evolution and planform changes across the entire reach.

3) Water Quality Monitoring: Various parameters will be measured at individual project sites & across the reach, looking for changes or trends in temperature, DO, and nutrients.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 10 - Construction Administration (0% complete)

Complete tasks necessary to administer construction contract. Keep daily records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Notice of Completion

PROJECT: Additional Water Storage

IMPLEMENTING AGENCY: Weott Community Services District

Project Description:

The Weott Community Services District currently only has a capacity to hold an approximate 3 day water supply for the community of Weott. In the event of a severe drought or any other emergency situation, this supply is not sufficient. In such an emergency the Weott CSD would enact stage 3 of our drought contingency plan and would need to purchase potable water. The proposed Weott CSD Additional Water Storage project would fund the planning and design phase of an additional water storage tank. The proposed tank would be a 500,000 gallon steel tank which would boost the water storage capacity to 30 days. The additional tank would also allow winter water storage to offset the loss of source surface water flow in the summer. A new water storage tank would also provide the benefit of water quality improvement.

Goals and objectives:

Goal1: Receive a grant for the planning of an additional water storage tank.

- Hire an engineer to survey the site for additional tank.
- Hire an engineer to plan the design of tank

Goal 2: Apply for a construction grant through Prop1

- Construct a 500,000 gallon steel tank.

Goal 3: Have a reliable water supply, efficient water use and water quality improvement.

- The 500,000 gallon tank would allow the District to store a 30 day supply of water for our consumers.
- The water the District diverts would be more efficiently used.
- In case of a severe drought emergency the District would have a sufficient amount of time to acquire potable water or rectify any problems with water source supply with this 30 day window.

Standards to be used in project implementation:

Design criteria in accordance with American Water Works Association Standards and the current edition of the California Building Code (CBC, 2013).

Summary of work completed to date:

SHN Consulting Engineers & Geologists provided planning and design scope and fee information regarding the design of a new 500,000-gallon potable water storage tank (welded steel or bolted steel) for the Weott Community Services District. The following technical document has been developed for the project:

- SHN Consulting Engineers & Geologists planning and design scope

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with partnering agencies, and consultants/contractors.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - Project Performance Monitoring Plan (100% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 3 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company if needed.

Deliverables:

- Proof of labor compliance upon request

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Site Survey (0% complete)

Perform a boundary and topographic survey at the proposed water tank site located on Newton Road in Weott. Existing conditions and topography will be mapped in relationship to the existing property line.

Deliverables:

- Base map in Autodesk Civil 3D 2014 DWG format digital file

Task 2 - Geotechnical Investigation (0% complete)

Conduct geotechnical investigation to evaluate the physical and engineering properties of the site subsurface materials in order to provide site-specific geotechnical design criteria for tank foundation support and related earthwork and seismic design.

Deliverables:

- Geotechnical Report

Task 3 - Planning and Permitting (0% complete)

Coordinate General Plan Conformance Review by the Humboldt County Planning and Building Department.

Prepare and circulate a CEQA Notice of Preparation (including tribal notification to the California Native Heritage Commission). Prepare categorical exemption or Initial Study/Mitigated Negative Declaration, as appropriate. File related CEQA Notice with State Clearinghouse. Prepare letter stating no legal challenges (or addressing legal challenges).

Deliverables:

- Copy of Notice of Preparation
- General Plan Conformance Review documentation
- Copy of categorical exemption or Initial Study/Mitigated Negative Declaration
- No Legal Challenges letter

Task 4 - Site Civil Design (0% complete)

4 (a) Pre-Design: Conduct a site visit with a Weott CSD representative to determine the specific location of the proposed 500,000-gallon water storage tank (welded steel or bolted steel). During this site visit, we will evaluate access to the site, determine the point of connections to the existing infrastructure, locate the tank overflow outlet location, and identify any potential conflicts or challenges that will impact the construction of the tank.

4 (b) Preliminary Design: The Preliminary Design phase will begin once the site survey and the geotechnical investigation have been completed. Our Preliminary Design effort will include the development of preliminary plans, preliminary technical specifications, and a preliminary cost opinion. We will submit these documents to Weott CSD for review and comment. Our preliminary plan set will include a site layout plan, a grading and drainage plan, a tank section and details plan, yard piping details, and miscellaneous details as required. The design will be completed in conformance with Regional Water Quality Control Board Division of Drinking Water requirements.

4 (c) Basis of Design Report: The Basis of Design Report will summarize the design considerations that were taken into account for this project. It will provide a basis for the selection of tank materials, the selection of the tank location, the size of the tank, and any other considerations that were taken into account during the design process.

4 (d) Final Design: The Final Design phase will result in design documents that are ready for bidding.

Deliverables:

- Plan Set (with engineer's stamp and signature)
- Technical Specifications (with a Measurement and Payment write-up and a Bid Schedule)
- Engineer's Construction Cost Opinion
- Contract Documents and Bid Package

Category (d): Construction/Implementation

None

PROJECT: Water Storage Tank and Roof Replacement Project

IMPLEMENTING AGENCY: Westhaven Community Services District

Project Description:

The water system of Westhaven CSD (District) relies on a single 100,000 gallon concrete storage tank with a metal roof supported by wood trusses that are in an advanced state of decomposition. The project consists of: 1) Installing a new 85,000 gallon storage tank that meets current seismic standards; 2) Installing associated piping, pump, and controls; 3) Replacing the roof on the existing tank; 4) Using the new tank to modify operating parameters to better understand and ultimately reduce Disinfection by-products (DBPs); and 5) Determining if there is a relationship between water color and Dissolved Organic Carbon (DOC) levels.

A new roof will protect the District's treated water from possible contamination. The existing tank's metal and wood roof does not meet seismic standards may fail in an earthquake. Installing a second tank in order to repair the failing roof on the existing tank will provide water supply reliability to the community, as well as additional emergency and equalizing storage to the system. The second tank will also allow the District to investigate key factors in DBP formation. The system currently produces high levels of DBP with haloacetic acid concentrations recorded as high as 400 µg/l (State maximum is 60 µg/l). Haloacetic acids occur when naturally-occurring organic and inorganic materials in the water react with disinfectants such as chlorine. Also, additional storage will allow the District to possibly cease producing water during periods of heavy rain, which should reduce DOC levels which are pre-cursors to DBP formation.

The new water tank would increase available storage from 100,000 to 185,000 gallons for 233 Westhaven residential customers serving approximately 500 people. The new water tank would bring the District into compliance with fire and emergency reserve standards.

Goals and objectives:

Goal 1: Protect water supply

- Install new water tank and replace roof of existing tank
- Comply with CDPH order to replace roof of storage tank to mitigate potential health hazard

Goal 2: Reduce disinfection by-products (DBP)

- Lower chlorine levels and measure DBP in the system
- Reduce DBPs by reducing dissolved organic carbon,
- Using storage during storms and measuring DBP in system. Graph results to determine if there is a relationship between DOC levels and water color.
- Prevent future CDPH Notice of Violations for exceeding maximum contaminant levels for Haloacetic Acids and Total Trihalomethane

Standards to be used in project implementation:

Monthly progress reports will be submitted through project completion. Reports will describe project progress, activities completed, problems encountered, and percent complete for all project tasks. A Project Performance and Monitoring Plan will be developed that: 1) Identifies performance goals related to DBP monitoring; 2) Defines performance indicators for each goal related to DBP monitoring; 3) Identifies the method, frequency, and schedule for collection of DBP data; 4) Identifies the party responsible for data collection and management; and 5) Interprets and summarizes data to be included in the final report.

Summary of work completed to date:

Engineering cost estimate, CEQA compliance, Geotechnical Site Report, Site Field Survey, 100% project design, and construction bidding have all been completed.

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with the IRWM regional manager, Humboldt County. Administrative responsibilities include providing audited financial statements and other deliverables as required. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes management responsibilities associated with the project such as coordinating with consultants/contractors, and partnering agencies including the State Water Resources Control Board Division of Drinking Water.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Financial Statements
- Invoices
- Other Applicable Project Deliverables

Task 2 - NCRP Project Application Proposal (100% complete)

Develop application materials for submittal in response to the NCRP 2015 Project Solicitation (http://www.northcoastresourcepartnership.org/app_pages/view/7972). The NCRP 2015 Project Review and Selection Process Guidelines and application materials were developed by the NCRP TPRC and were approved by the NRCP PRP during the NCRP quarterly meeting on April 16, 2015.

Deliverables:

- Project application materials and supporting technical documents (http://www.northcoastresourcepartnership.org/app_pages/view/8916)

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program. Execute service agreement with a Labor Compliance Program company.

Deliverables:

- Proof of labor compliance upon request

Task 5 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Design /Planning (0% complete)

Modify existing plans to reduce costs 100% (Final) design, plans, and specifications to reduce costs.

Deliverables:

- Updated Project Cost Estimate
- Updated 100% Design Documents

Category (d): Construction/Implementation

Task 1 - Construction/Implementation Contracting (0% complete)

Activities necessary to secure a contractor and award the contract include: develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.

Deliverables:

- Bid documents
- Proof of Advertisement
- Award of contract
- Notice to proceed

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring

Deliverables:

- Summary of site preparation activities in monthly reports
- Pre-project site photos

Task 3 - Project Construction/Implementation: Tank (0% complete)

Installation of 80,000 gallon tank and associated piping.

Deliverables:

- Photographic documentation
- Engineers Certification

Task 4 - Project Construction/Implementation: New Roof (0% complete)

Construction observation for new roof. Install new Roof on existing tank.

Deliverables:

- Photographic documentation

Task 5 - Project Close Out, Inspection & Demobilization (0% complete)

Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

- As-Built and Record Drawings
- Project completion site photos

Task 6 - Project Performance Monitoring (0% complete)

The performance of the project will be monitored in accordance to the Monitoring Plan using the measurement tools and methods as described in Attachment 2, Project Justification.

Deliverables:

- Photographic documentation
- Project Monitoring Report

Task 7 - Construction Administration (0% complete)

This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full time engineering construction observer will be on site for the duration of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- Construction Management Logs
- Completed construction administration tasks documented in monthly progress reports
- Notice of Completion

PROJECT: Yurok Watershed Restoration and Drinking Water Security

IMPLEMENTING AGENCY: Yurok Tribe

Project Description:

The Yurok is proposing a comprehensive resource management project comprised of an Alternative Drinking Water Storage Component (Water Storage) and a Watershed Restoration Component (Watershed Restoration). The project meets the following high priority water resource needs: improving water security for tribal members while protecting cold water tributaries, increasing community and watershed resiliency to climate change affects, and implementing effective habitat restoration. The Water Storage component will install storage tanks and filter systems for five landowners to allow for storage during the rainy season. Goals are providing adequate supplies of filtered drinking water during August-September, and eliminating summer diversions to benefit fish. The Watershed Restoration component consists of designing and implementing habitat restoration in Blue Creek, and decommissioning legacy roads and stream crossings in Turwar Creek to provide long-term water quality benefits.

Goals and objectives:

Goal 1: Provide resource benefits & improved water security for disadvantaged households.

- Conduct creek flow assessments to allow before and after flow comparisons, & diversion area assessments to identify/address other potential resource impacts. Goal 1 Objective: Conduct an assessment of diversion areas to identify any other resource impacts and develop potential strategies to address identified issues in future projects.
- Identify tank sites, receive signed landowner forbearance agreements, and complete all project permitting and compliance requirements.
- Purchase/install water tanks and filtration systems and assess project effectiveness via the creek flow assessments and follow-up interviews/surveys of the landowners.

Goal 2: Enhance and restore native salmonid populations using effective & innovative approaches.

- Improve conditions for adult and juvenile fish (increase sorting/retention of spawning gravel s, facilitate formation & maintenance of deep pools, increase cold water inputs to mainstem habitats).
- Improve water quality (reduce sediment delivery to productive tributary, mainstem river and estuary habitats, retain fine-grained sediment on floodplains to rebuild productive riparian soils).
- Promote long-term wood recruitment to fluvial habitats through riparian forest enhancement (planting native conifers and increasing channel stability through wood placement).
- Restore watersheds in a manner that facilitates cooler summer water temperatures and protection/enhancement of cold water refuge areas (e.g. deep pools, tributary confluence pools).

Goal 3: Promote economic stimulus and immediate support to disadvantaged communities.

- Recover native salmonid populations to help facilitate long-term economic stimulus to disadvantaged communities (increased Tribal subsistence/commercial fishing opportunities).
- Provide quality employment and training opportunities to Yurok Tribal members and support local vendors (heavy equipment leases, small and Tribally owned businesses).
- Continue the Tribe's efforts to develop drought and climate change adaptation strategies to ensure long-term ecosystem and community sustainability and resiliency.
- Engage Tribal youth and local students to promote long-term watershed stewardship and ensure innovative restoration/protection measures are continued by future generations.

Goal 4: Continue facilitating intraregional cooperation and adaptive management.

- Continue strengthening collaborative restoration partnerships within the Klamath Basin & with non-Klamath stakeholders to ensure knowledge transfer (effective approaches, lessons learned).

- Continue engaging political entities, tribes, and state/federal resource agencies to ensure innovative and effective salmonid recovery actions are encouraged/supported throughout the state.
- Assess project effectiveness and use information gained to guide and/or improve future resource protection and Tribal member water security projects in an adaptive management approach.

Standards to be used in project implementation:
Project standards for the water storage component will meet or exceed the California Title 24 building codes for construction code standards to include health and safety. Restoration standards/methods used for this project are described in California Department of Fish and Wildlife's (CDFW) *California Salmonid Stream Habitat Restoration Manual* (CDFW 1998). Yurok staff will also follow safety protocols outlined in the Yurok Tribe Watershed Restoration Program's *Injury Prevention and Safety Plan*.

Summary of work completed to date:
The Water Storage component was designed from an assessment of creek flow data gathered to develop a tribal residential surface water policy. At that time, surface water diversion rates >25% were mapped. Tribal staff and landowners collaborated to design the water storage tank project. YTWRP completed a Turwar Creek watershed assessment and road inventory in 2004 that identified and prioritized potential roads for decommissioning. Since 2007, YTWRP has decommissioned seven high priority roads and developed additional site specific road treatments including those proposed for this project (i.e. Turwar K10 & T10 Road Removal & Sediment Reduction Design). Blue Creek restoration is identified in YTFP's Phase I Blue Creek planning document (Beesley & Fiori 2008) and instream restoration actions proposed in West Fork Blue Creek are described in a conceptual design report. Following is a list of technical documents developed for the project:

- Conceptual Plan: West Fork Blue Creek Instream & Riparian Restoration Project, The Yurok Tribal Fisheries Program & Rocco Fiori (Fiori GeoSciences), 2008
- Design Plan: Turwar Creek Road Removal and Sediment Reduction Project, The Yurok Tribe Watershed Restoration Program

Category (a): Direct Project Administration

Task 1 - Project Management (0% complete)

In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager, Humboldt County. Prepare invoices including relevant supporting documentation for submittal to DWR via Humboldt County. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies, and managing consultants/contractors.

Deliverables:

- Fully Executed Grant Agreement
- Environmental Information Form (EIF)
- Audited Financial Statements
- Monthly Invoices
- Other Applicable Project Deliverables

Task 2 - Labor Compliance Program (0% complete)

Take all measures necessary to ensure tribal labor practices for this project are consistent with applicable California Labor Code requirements.

Deliverables:

- Documentation of consistent tribal labor practices upon request

Task 3 - Project Performance Monitoring Plan (0% complete)

Develop and submit a Project Performance Monitoring Plan. The Project Performance Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points. The NCRP Project Performance and Monitoring Plan Guidelines can be found at http://www.northcoastresourcepartnership.org/app_pages/view/7954

Deliverables:

- Project Performance Monitoring Plan

Task 4 - Reporting (0% complete)

Prepare progress reports detailing work completed during the reporting period as outlined in the sub-agreement with Humboldt County. Submit reports to Humboldt County for review.

Prepare draft Final Project Completion Report and submit to DWR via Humboldt County. Address Contract Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing Humboldt County/DWRs comments. The report shall be prepared and presented in accordance with the provision as outlined in the sub-agreement with Humboldt County.

Deliverables:

- Monthly Project Progress Reports
- Draft and Final Project Completion Report

Category (b): Land Purchase/Easement

Task 1 – Land Purchase or Land Easement (n/a)

Category (c): Planning/Design/Engineering/Environmental Documentation

Task 1 - Design /Planning (20% complete)

Conduct the following restoration planning/design elements for lower Blue Creek: 1) Hydrologic/Hydraulic Characterization & Hydrogeologic Investigations; 2) Data Synthesis & Development of Engineering Geologic Map; and 3) Restoration Design Alternative Assessment & Selection. Summarize this information in a Basis of Design Report and develop permit ready restoration designs for lower Blue Creek.

1 (a) Hydrologic/Hydraulic Characterization & Hydrogeologic Investigations. Compile and analyze flow data as it pertains to assessing instream structure designs and safety factor analysis of wood jams. Determine depth to bedrock and classify stratigraphy to assist designs.

1 (b) Data Synthesis & Development of Engineering Geologic Map. Generate detailed restoration design and engineering geology map from LiDAR and other mapping/survey data.

1 (c) Restoration Design Alternative Assessment & Selection. Develop feasible restoration alternatives, gather stakeholder input and select most effective restoration alternatives.

1 (d) **Final Blue Creek Designs.** Develop final designs ready for permitting.

Deliverables:

- Engineering Geologic Map of Lower Blue Creek
- Basis of Design Report & Permit Ready Designs for Lower Blue Creek

Task 2 - Environmental Documentation (0% complete)

Water Storage component: Prepare project information necessary to complete CEQA requirements. It is presumed this will require completion of a Categorical Exemption based on past project experience. Prepare and submit State Water Resources Control Board Water Storage Permit applications for each participating landowner to allow storage of water longer than 30 days.

Watershed Restoration component: Work with Green Diamond Resource Company to obtain CEQA compliance via their Master Agreement for Timber Operations (MATO) (Negative Declaration/Mitigated Negative Declaration CEQA Document) and Annual Work Plan approval process. Enroll activities in Green Diamond Resource Company's Annual Work Plan to receive project authorization by the State Water Resources Control Board and the California Department of Fish and Wildlife. Work with various federal agencies to complete NEPA, NHPA, and NOAA Section 7 Consultation for SONCC Coho.

2 (a) **CEQA: All Project Components.** Prepare project information necessary to complete CEQA requirements. Based on past projects, we anticipate the Water Storage component will be CEQA exempt. For the Restoration component, we will likely work with Green Diamond Resource Company to obtain CEQA compliance through their annual work plan approval process.

2 (b) **NEPA: Restoration Component.** Work with USFWS to conduct their NEPA process

2 (c) **Section 106 NHPA: All Project Components.** Provide the Yurok Tribe Cultural Preservation Department the necessary project information to allow assessment of potential cultural resource concerns and consult with THPO for study findings concurrence.

2 (d) **NOAA Section 7 Consultation for SONCC Coho: Restoration Component.** Work with NOAA to assess potential ESA impacts to Klamath coho

Deliverables:

- Completed CEQA/NEPA Document(s) and Notice of Determination(s)
- No Legal Challenges Letter
- All Required Permits
- Complete DWR Approved Environmental Information Forms

Task 3 - Permitting (0% complete)

Acquire the following permits and complete DWR Environmental Information Form(s) as needed.

3 (a) **State Water Resources Control Board Water Storage Permit: Water Storage Component.** Prepare permits for each participating landowner to store water longer than 30 days.

3 (b) **State 401 Water Quality Certification: Restoration Component.** Prepare project information necessary to complete 401 requirements. The Tribe will likely work with Green Diamond Resource Company to obtain 401 compliance through their annual work plan approval process.

3 (c) **1602 Streambed Alteration Agreement: Restoration Component.** Prepare project information necessary to complete 1602 requirements. We will likely work with Green Diamond Resource Company to obtain 1602 compliance through their annual work plan approval process.

3 (d) DWR Environmental Information Form(s). Prepare the DWR Environmental Information Form(s) as the permitting and regulatory compliance requirements for each component are met.

Deliverables:

- Authorized water storage permits
- 401 Water Quality permit authorization
- 1602 permit authorization
- Complete & DWR approved Environmental Information Form(s)

Category (d): Construction/Implementation

Task 1 - Construction Contracting (0% complete)

Follow the Yurok Tribe's procurement and contracting policies to select qualified contractors. This task includes managing contractors, answering requests for information, and issuing work directives, reviewing/ updating project schedule, reviewing contractor pay requests, forecasting cash flow, and generally ensuring quality assurances and control and that the project is being completed as designed.

1 (a) Construction Contracting: Water Storage Component. Follow the Yurok Tribe's procurement and contracting policies, complete bid and selection process for qualified contractors.

1 (b) Construction Contracting: Restoration Component. Follow the Yurok Tribe's procurement and contracting policies, complete bid and selection process for qualified contractors.

Deliverables:

- Selection of Qualified Contractors
- Documentation of Contractor Selection Process
- Notice of Completion

Task 2 - Mobilization and Site Preparation (0% complete)

Initiate project site preparation and mobilize project: order project equipment and supplies; assure project permits are in place; and conduct pre-project site photo-monitoring.

2 (a) Mobilization and Site Preparation: Water Storage Components. Order project equipment and supplies including: water service line (1-300 ft.) to ensure gravity feed away from house; individual slow sand filters, roughing filter, water storage tanks (2500 gallon-3 per house); shut off valve and float valve.

2 (b) Mobilization and Site Preparation: Restoration Components. Prepare sites, mobilize equipment, and purchase supplies.

Deliverables:

- Summary of site preparation activities in project reports
- Pre-project site photos

Task 3 - Project Construction (0% complete)

3 (a) Project Construction: Water Storage Component. Complete construction, including tank and filter installation, completing all necessary connections, and conducting water testing to ensure minimum EPA drinking water standards.

3 (b) Project Construction: Blue Ck Restoration Component. Install 21 fish habitat structures, construction management, demobilization & erosion prevention (post-project BMPs), plant 500 native trees.

3 (c) Project Construction: Turwer Creek Restoration Component. Decommission 2.34 miles of roads & remove 12 stream crossings with the potential of delivering ~9,980 yards of sediment saved (total fill: 14,511 cubic yards), demobilization & erosion prevention (post-project BMPs), plant 2,000 native trees.

Deliverables:

- Summary of Construction Activities in Monthly and Final Reports
- Photographic Documentation of Completed Work

Task 4 - Project Performance Monitoring (0% complete)

Monitor project performance in accordance to the approved Project Performance Monitoring Plan to assure the project elements were constructed and functioning as designed. Adaptive management measures will be implemented if necessary.

Deliverables:

- Completed Evaluation of Project Performance
- Project Monitoring Report